Meeting	EIA Public Consultation for EIS in relation to the following development permit applications: - PA 00021/14 – Combined cycle gas turbine and liquefied natural gas receiving storage, and re-gasification facilities. Site at Delimara Power Station, Triq il-Power Station, Marsaxlokk - PA 00022/14 – Construction of jetty and ancillary facilities. Site at Delimara Power Station, Triq il-Power Station, Marsaxlokk
Date	27th January 2014
Duration	Circa: 16.15 – 19.15 hrs
Location	Skola Primarja St. Thomas Moore, Marsaxlokk
EPD representatives	Perit Vincent Cassar (Chairperson); Mr. Alex Camilleri (Unit Manager – Environmental Assessment Unit)
Minutes taken by	Charmaine Zerafa (EPD)

Perit Vincent Cassar opened the meeting giving details about the proposed developments which are currently subject to the EIS *(PA 00021/14 – Combined cycle gas turbine and liquified natural gas receiving storage, and re-gasification facilities. Site at Delimara Power Station, Triq il-Power Station, Marsaxlokk, Malta; PA 00022/14 – Construction of jetty and ancillary facilities. Site at Delimara Power Station, Triq il-Power Station, Marsaxlokk, Malta)*.

Details vis-à-vis the purpose of the meeting were provided, in particular that the meeting was part of the EIA process. It was also clarified that this was not the decision-taking meeting but was being held to present the EIS findings and to gather feedback from the public in due time for any relevant considerations to be factored in during the process.

Dr Paul Gauci (ERSLI Consultants Ltd.) delivered a presentation explaining the studies carried out as part of the EIS.

Perit Vincent Cassar opened the floor for comments after the presentation.

Perit Edric Micallef (Marsaxlokk Local Council - Mayor)

Perit Micallef explained that as a Local Council they are representing the residents of the area and their top priority is the safety and health of the community. Other important issues the Local Council wanted to raise are related to the visual and noise impacts, amongst others.

Perit Micallef stated that if one considers this application as a stand-alone project, the result would be an increase in pollution levels. However, when viewed holistically within the whole context, the net result would be the entire power station complex working on natural gas and thus the benefit of phasing out the use of heavy fuel oils. He further commented that the Local Council, with the help of experts, submitted a report with several comments, including on the methodology used for the compilation of the risk assessment. He also outlined that in this same risk assessment one finds buffer zones indicating the areas which will be affected by this project but these do not take into consideration the fact that fishermen have no other choice but to go through these indicated high-

P.O.BOX 200, VALLETTA CMR 01, MALTA
TEL: (+356) 21 240 976 • FAX: (+356) 21 224 846
http://www.mepa.org.mt • email: enquiries@mepa.org.mt

risk zones to enter the port. Residents do not want to rely on statistics but to eliminate completely any risk factors.

The Local Council is also of the opinion that this project could have been proposed in a different way in order to be more visually sensible.

Perit Micallef noted that one of the studies factored in the EIA is the social impact assessment, which clearly shows that residents are concerned with regards to the positioning of the floating storage unit (FSU) and would prefer if this is located outside the port and that the gas is delivered to the plant through a pipeline. The Local Council's main priority is to have the storage unit outside the port so as to protect residents, but should this not be feasible for the time being, one should consider other mitigation measures to minimise the visual impact such as dredging underneath to decrease the height of the unit and different choice of colours to be more coherent with the surroundings. It is of utmost importance that the infrastructure is duly planned to allow for future modifications and further improvements.

Ing. Arthur Ciantar (Consultant for Marsaxlokk Local Council)
Ing. Ciantar further commented that the Council does not have any particular objection to the use of gas and due to the fact that they understand that this is a clean fuel. The main issue is the location of the FSU in the port.

Reviews of the studies done in relation to wind triggered questions with regard to the reason why statistics from a port in Cartagena (Spain) were used in order to establish the proposed contours for the risk assessment. The results of these studies are not convincing, and therefore the Council is not comfortable with the contours as provided.

The fact that the statistics show that there is a probability of one (1) in ten thousand years (10,000) for an accident to occur is not enough. What will be the consequences should an accident take place? In the conclusion of the risk assessment, the consultant stated that should a large accident take place, there will be an impact on the operation of the power station itself. This means that the security of supply is drawn into question. What will be the extent of destruction and fatalities the country will suffer?

Ing. Ciantar asked whether impacts of BLEVE (Boiling Liquid Expanding Vapour Explosion) were dealt with in the Environment Impact Statement and, if so, asked to review the results.

Hon. Mario Galea, MP.
Hon. Galea stated that during the presentation, Perit Gauci noted that the chimney, which will be of a height of thirty (30) metres, will have a very high temperature causing the pollutants to rise. In this regard, Hon. Galea asked whether there will be any circumstances where this might not take place, thereby resulting in pollutants not dispersing sufficiently. He also pointed out that it was also mentioned that there will be an approximate increase of eight (8) to twelve (12) trips a year to have natural gas delivered to the plant. It is not clear as to whether this translates into one trip per month.

Hon. Galea further questioned the procedure should maintenance be needed on the FSU. He asked whether this will be carried out in situ or whether the FSU will have to be taken to the dockyard for the necessary repairs. As previously mentioned by Ing. Ciantar, he also asked what will the effects be on adjacent areas and residents should an accident occur.

Mr. Stanley Zammit (Birżebbuġa Local Council - Councillor)
Mr. Stanley Zammit noted that a harbour and a nautical risk assessment will be carried out after this process and therefore after the commitment for development is made. There are a number of questions that should be raised regarding issues such as the movement of other vessels, impact on the Ħas-Saptan dolphin, impact on movement of vessels in the Freeport and impact on fishermen. He pointed out that lack of information of the same type was considered a show-stopper for a similar project but of a bigger scale in Trieste (Italy).

With reference to the social impact assessment, he commented that the same author of this report clarified that the studies had to be carried out within a limited time. This is reflected in some issues not being considered in detail in this study; for example, the effect on the market value of property in nearby localities. The social impact assessment focused more on the effect of the new turbines and on the mechanical aspect of the project and not on the impacts of the FSU which is of major concern to residents in the area. Mr. Zammit also noted that the reports include a statement saying that Enemalta engineers ruled out the option of having the FSU outside the port. Is it possible to know the reasoning behind this decision? The position of the FSU will have an impact on people's attitude towards the project.

Mr. Edwin Ebejer (Birżebbuġa Environment Action Group - BEAG)

Mr. Ebejer stated that with regard to the visual impacts from the proposal, the report only tackled six (6) different viewpoints: five (5) from Marsaxlokk and one (1) from Birżebbuġa. The FSU is visible from all surrounding areas, therefore this raises questions as to whether only these viewpoints were taken into consideration in order to minimise the extent of visual impact presented to the public.

He continued commenting that the report mentions recommendations and conclusions for the rehabilitation and restoration of open spaces for the surrounding area of Marsaxlokk. It is not clear why Birżebbuġa was not taken into consideration and it is expected that Birżebbuġa residents are given an equal treatment to those of Marsaxlokk.

The Freeport already has a significant visual impact on the surrounding areas and such impact should be minimised as much as possible and not intensified with this new project. In this regard, it is being proposed that the FSU should be placed outside the port.

Mr. Dominic Azzopardi (Marsaxlokk resident)

Mr. Azzopardi questioned whether other locations for this power station were taken into consideration in terms of alternatives. He noted that it is not clear as to why *Il-Ħofra ż-Żgħira* is not being considered as the location of the FSU given that there already is a tunnel connecting this area to the power plant, and which ultimately can be used for the delivery of gas.

Mr. Azzopardi questioned whether during the construction period, heavy vehicles will go through roads in residential areas. He suggested that upgrading of certain roads going through adjacent fields can be carried out in order to be able to use such route, with the aim of minimising impacts on residents.

He stated that currently, on days with southerly winds, residents are experiencing odour problems especially when the vessel arrives at the port to deliver fuel to the plant and questioned whether such problems will increase with the new proposal.

Mr. Azzopardi also raised the question as to whether the stated height of the chimney of thirty (30) metres is being calculated from sea level.

Mr. Angelo Micallef (Marsaxlokk Local Council - Councillor)

Mr. Angelo Micallef confirmed that as mentioned this project is subject to the Seveso Directive but questioned the full extent of the impacts on Marsaxlokk and Birżebbuġa.

Mr. George Camilleri (Din l-Art Ħelwa)

Mr. Camilleri stated that Din l-Art Ħelwa is concerned as to whether any studies were carried out with regard to alternative sites for the FSU. He said that while the applicants and the EIA Coordinator are indicating that other alternatives were taken into consideration, it was still not clear whether any actual studies were carried out with regard to such alternatives, and if so he asked to view the reports for said studies.

He also stated that in Din l-Art Ħelwa's opinion the Quantitative Risk Assessment (QRA) was misleading and superficial.

Dr. Hans Pasman (Consultant for Din l-Art Ħelwa)

Mr. Pasman commented that the methodology used in the risk assessment is conventional, and classical methods do not provide any certainty. He continued stating that the dispersion model used in the Quantitative Risk Assessment (QRA) is for flat terrain and not for a particular topography (e.g. hills). Thus, a highly specialised model would be required, validated specifically for this kind of situation.

Mr. Pasman pointed out that the risk of having a collision between vessels coming in the port and the permanently moored storage unit has not been calculated yet. He also noted that there is no clear picture as to the type of risks that the proposal will generate, particularly with all the marine traffic existing in the area. He also continued by suggesting that the tank ship is moored somewhere else far away from the port, with all security aspects being considered.

Dr. Therese Comodini Cachia (Former Birżebbuġa resident)

Dr. Comodini Cachia said that living in the area causes everyday stress on residents as they are constantly living with fear of possible accidents. She commented that the way this project was designed took into consideration the financial risks but did not give enough consideration to the risks imposed on the residents.

Hon. George Pullicino, MP

Hon. Pullicino asked whether the Control of Major Accidents Hazards Committee (COMAH), headed by the Operational Health and Safety Authority (OHSA) and of which the Civil Protection Department (CPD) and the Malta Environment and Planning Authority (MEPA) are members, gave their feedback with regards to the proposed development.

He continued by asking whether the Quantitive Risk Assessment (QRA) was submitted to the OHSA as the competent authority, and whether the OHSA have commissioned any experts to review and comment on such report. He also enquired who these experts were and whether he could have a copy of this report. He also asked whether other reports were carried out and whether the OHSA or their experts have commented on these reports. Hon. Pullicino also made a request for a copy of any other reports prepared and any respective comments on them.

Hon. Pullicino made a query with respect to the status of the process for the determination of consultation zones. He pointed out that no reference to such zones was made in the presentation, even though it is well known that for such projects it is obligatory to determine consultation zones.

He asked whether there was a Cost-Benefit Analysis with regards to other options, such as the purchase of energy from other terminals through the interconnector. He pointed out that the National Energy Plan identified that 70% of the required energy would be taken through the interconnector and that with this new project, the interconnector will hardly be used since the base demand of the country is of 160MW and the power station will be providing 210MW.

He further declared that the statement saying that the LNG plant was included in the Strategic Environment Assessment (SEA) for the BWSC plant is not true and that if one reads the Strategic Environmental Assessment there is a comment stating that should LNG be considered at a later stage, a Strategic Environment Assessment would need to be carried out accordingly.

Hon. Pullicino remarked that the current emission levels are below the ceilings set by MEPA and those accepted by the European Union. The fact that such emissions will be minimised further is positive but not the main issue. The main concern with this project is the storage of LNG and the transfer of the same LNG between the storage unit and the plant. Hon. Pullicino additionally commented that when this project was first presented to the public, it was said that the storage of gas would consist of 60,000 cubic meters (m^3) but now the value mentioned is that of approximately 140,000m^3. He also questioned whether the option to have the FSU outside the port is being scrapped because of the pre-determined tight timeframes.

He continued by asking whether the statements made by the Local Council consultants were true in relation to the fact that the data used for the gas dispersion model is not correct given that such data is not from Malta. Hon. Pullicino further enquired whether the model used assumed flat terrain when this is not the case around the site in question, as observed by Mr. Pasman. He also asked whether a map showing the manouvering of the supply vessel has been prepared.

He asked whether an assessment of the risk related to the possibility of accidents on other installations in the vicinity and their effect on this plant was carried out. Hon. Pullicino also pointed out that in the terms of reference it was stated that the Ħas-Saptan dolphin had to be taken into consideration in the compilation of the reports. However, he noted that such studies were not carried out and there is no conclusion as to whether the dolphin, which handles all of Malta's aviation fuel, has to move and (if yes) to where.

Hon. Pullicino continued by pointing out that in the photomontage showing the FSU from viewpoint four (4), a boat is located in front of the FSU thereby obstructing the view. He also commented that it is not clear as to why the re-gasification unit is not being located on the storage tanker itself considering the higher risks entailed during the transfer if this is done on land. He also stated that no other existing LNG plant has a floating storage unit and is supplied through a ship-to-ship process.

He also asked what the impact on the targets of minimisation of carbon dioxide will be when compared to the targets established by Malta.

Dr. Anne Fenech (Maritime Lawyer)

Dr. Fenech said that her main concern as a maritime lawyer is the fact that a proper maritime impact assessment was not carried out given that the said port harbours a high level of activity including circa two thousand seven hundred (2700) container ships going in the Freeport, fishermen activity and oil tanking. She stated that, first and foremost, the feasibility of having a permanent FSU of such dimensions and a supply vessel approximately twelve times a year together with the already existing marine traffic has to be established.

Ms. Josette Micallef (Resident)

Ms. Micallef stated that apart from the already mentioned issues, this project will also affect the sports activities that are carried out in this area, such as yachting and the existing waterpolo pitch.

Mr. John Grech (Birżebbuġia Environmental Action Group).

Mr. John Grech questioned the amount of land that is being wasted due to the fact that in the EIA the site allocated for the Combined Cycle Gas Turbine (CCGT) has a total area of 12,000 square metres (m^2) while the footprint is of 3000 m^2, and for the regasification the allocated site is of 3348 m^2 while the footprint is of 995 m^2.

He also commented that there is a difference between the size of the FSU as presented in the assessment published in August and that presented in the latest assessment submitted in December. In fact, the EIA indicates that the refueling trips have increased from a total of seven (7) trips a year to a trip each month. Mr. Grech continued by commenting that in the first assessment it was mentioned that the dolphin had to be relocated, however in the latest assessment the dolphin is not being taken into consideration.

Mr. Grech stated that it is important to obtain the necessary ISO 14001 certification and not just work on the ISO standards. He also noted that the risks with respect to seismic effects were not considered.

He continued by asking whether LNG and mercaptan will be delivered already mixed, or whether these will be mixed on the FSU or in another location. He also mentioned that the EIA refers to the possibility of separation of three gases, and pointed out that different types of gases have different volumes, thereby causing some gases to rise which might cause a roll-over effect.

He also pointed out that the domino effect was calculated only with regard to the impact that the FSU can have on the power station, but it did not consider other situations that can affect the FSU or the power station itself e.g. Oiltanking Malta, Gasco, etc. Mr. Grech also asked about the effects of the proposal on the employees at the Malta Freeport which is only 1.2 km away from the FSU and stated that the calculations with regards to the population and distances are all wrong. He also commented that the studies have to take into consideration the fact that on Sundays the amount of people at Marsaxlokk increases due to the open market and that in summer the population of Birżebbuġa increases due to summer residents.

Mr. Grech emphasised that the FSU should be positioned outside the port, for example at Hurd's Bank or farther away from Delimara to minimise the visual impact and the cumulative effect which will consist of the FSU, the supply ship, the chimneys, the Freeport and other vessels and structures in the area.

Mr. Paul Dalli (Marsaxlokk resident)
Mr. Dalli commented that the fact that the level of emissions of HFO is acceptable by the European Union does not mean it is acceptable to the residents who encounter daily health problems due to such emissions, particularly respiratory problems. He said that he is in favour of this project if this will help to reduce pollution and provide cleaner air.

Mr. Frans Grech (Marsaxlokk resident)
Mr. Grech questioned whether any filters were placed in the existing chimneys and how long it took until these were done. He also questioned whether any studies with regard to the possibility of having the storage unit moored outside the port were carried out.

Mr. Alfred Falzon (Marsaxlokk resident)
Mr. Falzon asked whether the impact assessment took into consideration stakeholders in relation to sporting activities in the area.

Hon. Anthony Bezzina, MP.
Hon. Bezzina asked about the effect of this project on the issuing of building permits in the area. Furthermore, he also raised the issue of how long it will take to sail the FSU outside the port and what will be the manoeuvring procedure in the eventuality of an accident. He also made a query with respect to the location of the FSU.

Dr. Paul Gauci (EIA Coordinator)
Dr. Gauci started by making a clarification with respect to his statement related to the stack emissions in relation to the fact that in certain circumstances, the emissions from the stacks may go up more than 30 metres but this does not mean that the system will not have a constant performance. He was referring to certain cycles of the process, for example cycle 1 when the exhaust will be expelled through the by-pass stack which is of 30m. He continued by explaining that although the by-pass chimney stack is thirty (30) metres high, the very high temperatures will make the virtual height of the stack much higher as the emissions will be shot upwards. Thus, he explained that the concentration of pollutants near the chimney will be lower than the levels established in Legal Notice 11 of 2013.

With reference to the viewpoints, he further explained that the location of such viewpoints was established in June while the current proposal was finalised in November. He clarified that the Zone of Visual Influence (ZVI) refers to those locations from where a person can see the highest point of the proposed project and that all photomontages were carried out between June and July and were determined according to the proposal at hand at the time. Perit Gauci stated that there were no other reasons which influenced the choice of location of the viewpoints and that these clearly show that the proposal and the FSU will be clearly visible from surrounding areas.

Dr. Gauci explained that research with regard to the environmental performance of natural gas was carried out, including information derived from the US Department of Energy web portal. The results showed that natural gas generates 28% less carbon dioxide (CO_2) emissions than diesel and 33%

less CO_2 than HFO. He explained that the impact of CO_2 emissions on the environment is not local but causes the greenhouse effect. Thus, the CO_2 generated here in Malta has the same effect as that generated in some other country should we opt to buy energy from somewhere else. He further explained that one of the main focuses of the EIA was the issue of hazardous local pollutants and not the targets established by the country. He also added that the information given indicates that we are close to these targets.

Dr. Gauci continued by explaining that the social impact assessment was not requested by MEPA as part of the EIS, and that the TORs only requested the assessment of impacts on human populations. The decision taken by the EIA Coordinator and the applicant was to compile a Health Impact Assessment and a Social Impact Assessment, which led to public consultations initiated in June so as to avoid having to wait for the official public hearing to have comments from the public.

Mr. David Galea (Project Coordinator)

Mr. Galea explained that as indicated in the presentation given by Dr. Gauci, the levels of PM_{10} will decrease by almost 90%, which is a drastic improvement since these type of emissions are the ones which cause health problems. Mr. Galea continued by saying that from the comments raised by residents, it was noted that the main issue is the location of the FSU in the port and the risks attributed to this scenario. He stated that different options were considered for the location of the FSU and that these were analysed taking into consideration criteria and objectives that needed to be adhered to. Some issues encountered were safety, security of supply, financial issues and issues related to timeframes. He declared that in the context of these objectives, the result was that it would be difficult to have the FSU outside the port especially due to the issue of security of supply due to bad weather.

Mr. Roberto Vaccari (QRA expert)

Mr. Vaccari stated that the results obtained in the risk assessment were based on internationally recognised methodologies and guidelines, produced in countries like the United Kingdom and the Netherlands. He explained that if comparisons with similar studies in other countries are done, one can notice that the distances that are being proposed for this project are similar to those calculated for similar plants in Europe which are of a larger scale and which manage greater quantities of LNG. He explained that the QRA is a preliminary assessment due to the fact that at this stage it is only being used as a reference for land use planning, in order to understand whether the project fits in the area proposed; and to have a first calculation of the risks that can be endured for each installation in the area. The preliminary QRA presented with the EIS is based on the worst case scenarios and thus takes into consideration scenarios of accidents without any type of safeguards.

Mr. Vaccari stated that the QRA included one scenario with regard to different ships manoeuvring in the area and that they are asking for a more complete nautical risk assessment. He clarified that such risk assessment is not being requested to understand whether there is the possibility to have a larger area affected by a collision of two ships but to understand where exactly to impose limits of speed and movement of ships in the area.

Mr. Vaccari also explained that the domino effect and the effect on the Delimara Power Station itself were included in the assessment. In fact it was concluded that the Delimara Power Station could be an ignition point itself, hence the choice of putting the jetty in the middle of the bay to be as far away as possible from the power station. He continued by saying that should there be an accident and the gas cloud reached the power station, the cloud can be ignited by the same power station.

He confirmed that the weather conditions referred to in the report were all taken from Malta and from the surrounding areas of Marsaxlokk. He also noted that the BLEVE report is of relevance for LPG plants and not for LNG plants as in this case, and that in these circumstances such report would not provide a realistic scenario.

Perit Peter Zammit (Project Architect)

Perit Zammit explained that the IPPC process will go into more detail with regard to the operational phase, including the safety measures that will be considered for this plant.

Ing. Arthur Ciantar (Consultant for Marsaxlokk Local Council)

Ing. Ciantar stated that the way this project is being presented gives the impression that the location of the FSU is definitive and that comments given by residents will not be taken into consideration. Ing. Ciantar commented that there are no other plants that use an offshore FSU due to the high level of risks. He said that a BLEVE report can be carried out on any type of liquid substance even if this is not a flammable one, and in this case having LNG at -160℃ surely requires a BLEVE assessment to be carried out in order to further understand the extent of an accident should one take place.

Mr. Hans Pasman (Din l-Art Ħelwa consultant)

Mr. Pasman commented that, although the dispersion model used might be one that is used internationally, it does not mean that it is necessarily suitable for this particular case. He questioned whether this model has been validated with the use of LNG, as the characteristics of LNG are different from those of chlorine, ammonia and other substances.

Mr. Sergio Mallia (Journalist, Public Broadcasting Service - PBS)

Mr. Mallia quoted previous MEPA Chairman, Mr. Austin Walker as follows: *"The people who disagree with the project (referring to national projects) say we are being used as rubber stamps and the people who agree with the project including the government expect MEPA to accept it".* Taking this into consideration, Mr. Mallia asked MEPA and Enemalta to state whether the decision in relation to the positioning of the FSU has already been taken or whether this public consultation will make any difference in the decision-taking process.

Perit Vincent Cassar (MEPA Chairman)

Perit Cassar confirmed that to date MEPA has not taken any decision on the proposal and that the EIA process is still to be finalised. He explained that once the EIA process is finalised this will then be presented to the MEPA Board which consists of fifteen (15) members who are all free to review all aspects of this project and vote as they deem appropriate. He confirmed that all the comments raised during the public hearing were taken note of and will be forwarded to the consultant for further assessment and review.

Mr. Costantino Caruana (Marsaxlokk resident)

Mr. Caruana commented that residents of Marsaxlokk are not allowed to gather water in their personal reservoirs and questioned the authorities for such a prohibition. He pointed out that the health and safety of residents is to be given priority in this project. He also remarked that there is lack of lighting along the Marsaxlokk promenade.

Perit Cassar closed the meeting by confirming that the points raised have been recorded and noted. He also thanked the participants and invited them to send any further comments, preferably by email to *eiamalta@mepa.org.mt*, or by post to *'The Director, Environment Protection Directorate, MEPA Head Offices, St Francis Ravelin, Floriana'*, by Monday 3rd February 2014.