

Imera Ltd.

Application for EU Exemption

April 2008





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EXECUTIVE SUMMARY

This document sets out Imera Ltd. ("IMERA")¹ request for an exemption from Article 6(6) of Regulation 1228/2003/EC and the relevant provisions in GB and Irish law implementing Articles 20 and 23 of the Electricity Directive 2003/54/EC in relation to the proposed East West interconnectors between the Irish and GB electricity transmission systems.

The first phase of the East West interconnectors ("EW1") has reached the critical point during which it is preparing financial close. Depending on the project being awarded exemptions in line with the request set out in this application from both the Irish and UK regulatory authorities and the consent of the European Commission, construction of EW1 is programmed to start in 2008. The EW1 interconnector is expected to come into operation in 2010. The second phase of the East West interconnectors ("EW2") is expected to come into operation one year later in 2011. Both interconnectors will be 350 MW sub-sea HVDC cables.

IMERA is an Irish limited company and the holding company of the Imera Group and a 73.68% owned subsidiary in the Oceanteam group². IMERA intends only to build, own and operate the interconnector system, the capacity of which will be made available to the Irish and UK markets using an open season type of auction process for long term contracts. IMERA has no ties with any existing market player in either the UK or Irish Electricity markets. Section 2 demonstrates that IMERA fulfills the six criteria set out in Article 7 of Regulation 1228/2003/EC, based on which an exemption can be granted.

The construction of the East West interconnectors fully supports the EU policy to increase interconnection across the EU. As such, it will contribute towards both the UK and Ireland meeting the policy requirements set out by the European Council at the Barcelona summit in 2002. Increased interconnection will benefit these two member states in terms of:

- <u>Security of supply</u>: system reliability will be improved by deepening the pool of potential providers of reserves and balancing services to the TSOs. An increased penetration of renewable energy sources will also be enabled thereby helping to decrease the fossil fuel import dependency of these countries.
- <u>Competitiveness</u>: trade is enabled between these markets increasing the downward competitive pressure on electricity wholesale prices and improving consumer access to generation sources by introducing a greater diversity of supply.
- <u>Sustainability</u>: harmful emissions can be reduced thanks to a more efficient use of generation in each country.

IMERA seeks a full exemption, including an exemption from the Regulated Third Party Access regime contemplated by Article 6(6) of Regulation 1228/2003/EC and the relevant provisions in Irish and UK law implementing Articles 20 and 23 of the Electricity Directive 2003/54/EC ("RTPA regime"), for 25 years for EW1 and 20 years for EW2. The duration reflects the forecasted discounted payback period and the overall risk associated with a high degree of uncertainty of revenues over the life of the assets.

¹ Former Imera Hydragrid Ltd.

² Appendix 6 includes letter stating financial commitment Oceanteam



IMERA's motivation for obtaining a full exemption, encompassing:

- The use of the congestion revenues, which are the revenues that result from auctioning the transmission capacity rights. This is related to the <u>commercial risk</u> of the project: investors in the East West interconnectors need the assurance that they will not just face the downside risks to project returns but will also benefit fully from the potential upside. If the interconnector was subject to Article 6(6) of the Regulation and the relevant provisions in Irish and GB law implementing Articles 20 and 23 of the Electricity Directive 2003/54/EC, there would be a danger that, if the interconnector is commercially successful, the returns to investors would be capped, if not entirely removed. However, if it is unsuccessful, there is no mechanism for compensating investors. Proceeding without an exemption would therefore be too risky. The range and level of risk undertaken by IMERA is considerable and includes, but is not limited to, construction and technical risks, operational, supply, credit, and price risks in a competitive wholesale market. The individual and combined magnitude of these risks is significant.
- The <u>Regulated Third Party Access (RTPA) regime</u>. This is related to the <u>regulatory risk</u>: even though the proposed access regime is inline with the current RTPA regime, an exemption from this RTPA regime is necessary to eliminate the risk that the RTPA regime changes during the exemption. The approval of the proposed regime can be part the exemption, because the proposal is to fully allocate long term capacity rights at the beginning of the project via an open season type of auction process³. Long term capacity contracts are crucial to the financing of the project. A secondary market will be facilitated which can comprise explicit auctions from year-ahead base load down to an hourly day-ahead market. To prevent users from withholding capacity, "Use it or Loose it" will apply, but users will have the opportunity to sell their capacity in the secondary market that will be facilitated.
- The annual approval of <u>charging methodology</u> by the regulators. The users get access to the interconnectors by purchasing capacity rights. There are no additional charges by IMERA that would need to be approved by the regulators

In conclusion, the East West interconnectors represent a major step in moving towards a more interconnected European electricity transmission system, with the associated benefits in terms of competitiveness, security of supply and sustainability.

The project will bring considerable benefits to British and Irish consumers alike. In particular, the consumers will have the benefits without being exposed to the costs or ongoing business risks they would be exposed to if the costs of the interconnectors were socialized. Especially for the Irish customers, the cost per customer and therefore also the pressure on the transmission tariffs would be too high⁴. IMERA therefore proposes to implement the project on a merchant basis using private funding. Only the users of the interconnector will pay for it.

³ Open seasons have been run in several merchant projects, such as the BBL Gas Interconnector between the UK and the Netherlands and the Rotterdam Gate LNG Terminal (the Netherlands), The Dragon LNG Terminal (UK) and the Isle of Grain LNG Terminal (UK).

⁴ Note that this is the main reason why Estlink, the interconnector between Estonia and Finland, was developed as a merchant project by a consortium of generators instead of being financed by the transmission tariffs. As in Ireland, also in Estonia several transmission projects needed to be undertaken so that the pressure on the tariffs in the short term would be too high if all costs were socialized.



The EU exemption regulation has in fact been designed to allow merchant solutions for these kinds of major and risky interconnector investments. More than $10 \in$ per customer is considered as major by the European Commission⁵. If not developed on a merchant basis, the East West interconnectors will cost $184 \in$ per customer if paid by the Irish customers⁶. In comparison, Estlink would have cost "only" $90 \in$ per customer to the Estonian customers, which was an important driver in the approval process of this merchant project.

1. PROJECT DESCRIPTION

1.1. BACKGROUND: EAST WEST INTERCONNECTOR

Increased electricity interconnection capacity between Ireland and the UK is considered as a project of common European interest by the European Commission through the Trans-European Networks-Energy (TEN-E) program⁷, as it will enhance the competitive operation of the internal market and contribute to improved security of supply in the Union.

Increased interconnection is also in accordance with the European Commission's shortterm objective for interconnection capacity between member states to equal at least 10% of installed generation capacity⁸. The 2005 benchmark report⁹ of the European Commission classifies Ireland and UK among the member states with too low levels of interconnection capacity, together with Portugal, Spain, Poland and the Baltic states collectively. The reported import capacity as a percentage of installed generation capacity is respectively only 3% and 6% for the UK and Ireland, while the average for the countries included in the report is 30%.

In 2004, the European Commission started to actively promote regional markets. In 2006, the European Regulators Group for Electricity and Gas (ERGEG) in cooperation with the Commission renewed the regional strategy by setting up the seven regional initiatives. One of these regions is the UK/Ireland market. Increased interconnection between Great Britain and Ireland is a key enabler for the creation of this regional market, which is seen as an intermediate step towards a single electricity market in Europe.

The interconnectors will have a positive impact on security of supply in the UK and particularly in the North Wales area following the planed closure of the nuclear plant Wylfa in 2010, which is close to the EW1 connection point Pentir. The interconnector is

7 Decision 1229/2003/EC of the European Parliament and of the Council of 26 June 2003 which layed down a series of guidelines for trans-European energy networks and repealing Decision no. 1254/96/EC, 26 June 2003.

8 Communication from the Commission to the European Parliament and the Council on European Energy Infrastructure, 20 December 2001

9 Table 9.1 in the technical annex of the 2005 Report on Progress in Creating the Internal Gas and Electricity Market from the Commission to the Council and the European Parliament.

⁵ DG TREN, Note of DG Energy & Transport on Directives 2003/54-55 and Regulation 1228/03 in the Electricity and Gas Internal Market, Exemptions from certain provisions of the third party access regime, 30 January 2004.

⁶ The construction cost is 340M€ for 1.85 million electricity customers in Republic of Ireland (see for instance Regulators' Annual Report to the European Commission, CER05227).



especially important for Ireland as the Irish power system is a relatively small. In a small system, it is more difficult if not impossible to create competition on an efficient scale. The costs of spinning reserve also limit the size of the larger generating units because reserve must be continuously available to substitute for the possible loss of the largest generating unit. With interconnection, particularly to a large system, bigger generation units, which enjoy economies of scale, can be accommodated. Furthermore, it is likely that Ireland will face a situation with inadequate generation capacity. The East West interconnector can help in avoiding shortages of power in Ireland.

The Commission for Energy Regulation (CER), supported by the Irish Government, has therefore been actively promoting the development of a merchant East West interconnector with a capacity of the order of 500 MW. More recently Eirgrid has been asked to develop a regulated solution. IMERA is however developing this interconnection project on a merchant basis as originally promoted by the CER. Furthermore, it is envisaged that the capacity will be available to the market prior to forecasted shortfalls in generation capacity in Ireland and instead of only 500 MW, 700 MW will be available.

1.2. TECHNICAL DESCRIPTION

Imera is planning to build and subsequently operate two sub-sea cables linking the Irish and GB electricity markets. The project known as the East West interconnectors will enable the trade of electricity between Ireland and the UK. The project will be developed over two phases (Appendix 1):

- <u>Phase 1, EW1</u>: an HVDC line with an interconnection capacity of 350 MW will be constructed between Arklow 220kV substation in the Republic of Ireland and Pentir 400 kV substation in Wales. The total length of the line will be approximately 125 km of submarine cable, 5 km of underground cable in Ireland and 15 km of underground cable in Wales.
- <u>Phase 2, EW2</u>: a second HVDC line with an interconnection capacity of 350 MW will be constructed between Great Island 220 kV substation in the Republic of Ireland and Pembroke 400 kV substation in Wales. The total length of the line will be approximately 132 km of submarine cable, 20 km of underground cable in Ireland and 1 km of underground cable in Wales.

IMERA intends to develop both links (EW1 and EW2) simultaneously with a time lag of one year. It is envisaged that the first phase will be operational in 2010 and the second phase one year later in 2011, subject to the necessary consents.

IMERA has significantly advanced in all key areas of the project. Appendix 2 summarizes the status of the required consents, including marine surveys (see Appendix 1 for the routes), planning, grid connections, and Environmental Impact Assessments.

After a formal tendering process, ABB have been awarded the EPC contract. The state of the art High Voltage Direct Current Voltage Source Converter (HVDC-VSC) technology, called HVDC Light, has been chosen. VSC HVDC applications, in comparison with classic HVDC applications, are better suited to feed into:



- Environmentally sensitive environments:
 - The cable itself will have little environmental impact once laid. It has a diameter of approx. 4.5in, is coated with extruded polymer, has an aluminum core and contains no oil. Initial research shows that the transmission of electricity along it creates no magnetic field and generates little heat during operation.
 - Each converter station will have a foot print of about 2 acres. The buildings are relatively small and unobtrusive with a barn-like building of 80x25x11meters. They have a 60% smaller footprint than a traditional HVDC system.
- Weaker grid systems:
 - No reinforcement in the surrounding grids is required, which is common and costly for traditional HVDC projects
 - The HVDC Light technology also allows for extra support to the grid owner in the form of e.g. restoring a black net and keeping the voltage level stable

In addition, the HVDC Light technology has several important advantages compared with traditional HVDC, which greatly facilitates the development process for a private developer, time and cost wise:

- Short construction time, 19 months, compared with traditional HVDC's 36 months
- The HVDC Light system consists of less and "lighter" equipment, e.g. the extruded polymer cable can be laid in half the time than a traditional cable
- Less equipment is required for the HVDC Light results in a high availability > 99% and less maintenance costs, during the operation of the system.

Even though this is the latest technology, there are already two projects with several years of operation. The "Estlink" between Estonia and Finland and the "Cross Sound Cable" between Long Island and Connecticut in the USA are also 350 MW HVDC light cables. This is important for the financers in order to mitigate some of the technical risk and it also reassures potential users and stakeholders.

Finally, two 350 MW cables are easier to connect to the grid and more reliable than one single 700 MW cable. A report Commissioned by the Irish regulator CER¹⁰ indeed concluded that a single link with a capacity greater than 500 MW would be difficult to accommodate given the scale of the Irish system.

1.3. BENEFITS OF THE EAST WEST INTERCONNECTOR

The construction of an interconnector between Great Britain and Ireland will have considerable benefits in terms of security of supply, competitiveness and sustainability of the electricity markets in both GB and Ireland. An interconnector that is accessible by

¹⁰ The CER Document (CER/03140) entitled "Costs and Benefits of East-West Interconnection between the Republic of Ireland and UK Electricity Systems".



all market players on an open, transparent and non-discriminatory basis will for instance:

- promote new market entry, through reduced barriers to entry in both connected markets;
- increase import/export limits and thus provide more competition options to the marketplace;
- exert a downward competitive pressure on wholesale electricity prices;
- allow markets on both sides of the Irish Sea to have efficient economic access to existing and new generation sources (such as wind farms);
- improve regional electric reliability for both the east coast of Ireland and Wales;
- facilitate competition in balancing and ancillary services;
- promote the optimal allocation of generation resources;
- assist to reduce pollution, as efficient, cleaner power stations are more likely to be dispatched;
- assist in the development of a meaningful regional market; and enhance security of supply.

Both Ireland and Wales have some of the largest potential renewable energy generation resources in Europe, but without an interconnector many of these resources will remain untapped. The availability of interconnection capacity will greatly enhance the available market for renewable energy.

1.4. MARKET POWER REMEDY

The UK electricity market is significantly larger than the Irish market: peak demand in the UK is roughly 12 times greater than Ireland. The market is also far more mature and benefits from strong competition.

As many other European electricity markets, the Irish market is concentrated. The five most active independent licensed suppliers of electricity are Airtricity, Bord Gáis, CH Power, Energia and ESB Independent Energy (ESBIE). ESB remain dominant in the market so that independent suppliers have limited options in gaining access to generation.

Figure 1 illustrates the generation capacity market shares in Ireland before and after the East-West interconnector project (EW1 + EW2). Note that the Republic or Ireland and Northern Ireland are and can be considered as a single market in this illustration since the introduction of the All-Island market initiative at the end of 2007. Note also that the illustration does not take into account the agreement between the Irish incumbent ESB Power Generation and the CER on a structural remedy to decrease its market share.





Figure 1: Generation capacity market shares before and after East-West interconnector (based on K.U.Leuven competition assessment, Appendix 4)

The above illustration shows that the East West interconnectors will decrease the market shares of the existing players, thereby improving competition, assuming of course that the winners of the auction process that will allocate the long term transmission capacity rights are new entrants in the Irish market.

The CER has expressed concerns about dominant players winning all the capacity, especially considering that long term contracts are used. The K.U.Leuven competition assessment report (Appendix 3) indeed concludes based on a detailed Herfindahl-Hirshman Index (HHI), Pivotal Supply Index (PSI) and Residual Supply Index (RSI) analysis that because long term contracts are used, ESB should not be allowed to get more than 61.34% of the 700 MW East West interconnector capacity, in order not to worsen competition as measured by these competition indicators. The report also concludes that such a cap is not necessary for any of the other players, except for Viridian for which a cap of 98.28% is necessary based on the same logic as for ESB.

To guarantee that competition in Ireland is improved, whatever the outcome of the auction process, IMERA therefore proposes to put a 40% cap on ESB and a 70% cap on any other party.





Figure 2: Generation capacity market shares before and after East-West interconnector (based on 2007 Sector Inquiry by the European Commission and taking the net generation capacity for the UK as indicated in ETSO generation adequacy report)

Figure 2 illustrates the generation capacity market shares in the UK before and after the East-West interconnector project. The diagrams are based on the Sector Inquiry report by the European Commission¹¹. The figure clearly illustrates that the UK market is competitive and will remain so even if all the capacity would be allocated to the largest player in the UK. If all East West capacity would go to the largest player, undertaking A, its market share would increase with 0.78 % in comparison with the situation without the East-West interconnector, which is negligible. In addition, the 70% cap mentioned above of course also applies to the existing players in the UK so that competition is guaranteed to further improve also on the UK side.

1.5. OPTIMAL CAPACITY

This section addresses the concern that a profit maximizing merchant project developer would go for an interconnector that is too small from the consumer's point of view. Given that the East West interconnector that is applied for will have a capacity of 700 MW, which is larger than the 500 MW originally envisaged by CER, this concern does not apply to this project.

The 700 MW is the optimal trade off between project viability and the benefits to consumers. Section 1.2 explains why, for technological and grid connection reasons, a multiple of 350 MW has been considered to determine the optimal capacity for this project. Developing more than one 350 MW interconnection between Ireland and the UK does not reduce the development costs per MW, but it does reduce the revenues per MW. This is clearly indicated in the prospective analysis report by the K.U.Leuven (Appendix 4). The analysis includes revenue projections based on what-if scenarios related to the tightness of the Irish market (less generation capacity for more load), CO_2 prices and fuel prices.

¹¹ SEC(2006)1724, 10 January 2007, Part 4, p339: http://ec.europa.eu/comm/competition/sectors/energy/inquiry/ index.html



In the K.U.Leuven report, the potential generation cost savings from using the East-West interconnector are calculated. The cost savings per MW drop significantly between scenarios with a 350 MW and a 700 MW interconnector and even more so between scenarios with a 700 MW and a 1050 MW interconnector. In the business as usual scenario, the cost savings from a 700 MW or 1050 MW interconnector are almost the same. In other words, the extra capacity would not be used at all in this scenario, which results in a substantial decrease in the number of hours in which the interconnector is congested.

In conclusion, a profit maximizing merchant developer would rather go for a 350 MW project. A 1050 MW project would clearly not be viable, because the payback period would be too long. 700 MW is therefore the optimal trade off between project viability and the benefits to consumers.

1.6. REQUIRED DURATION OF THE EXEMPTION

IMERA requests that the duration of the exemption is 25 years from the start of initial operations for EW1 and 20 years for EW2. IMERA considers that this is the minimum sufficient to allow for a financing package to be implemented. A shorter exemption period will prejudice the possibility of obtaining financing as envisaged and may result in the project no longer being viable. The duration is wholly justified by the high level of risk involved (as demonstrated in Section 2, in response to Criteria B) and by the scale of the project.

As discussed in the previous paragraph, the scale of the project is an optimal trade off between project viability and benefits to consumers. In the business as usual case, the K.U.Leuven prospective analysis report (Appendix 4) projects annual revenues that are not sufficient to reach payback during the exemption periods that is applied for. In other words, the project relies on the future being different from the current situation, rather than relying on the past to repeat itself¹². The report illustrates how higher fuel prices or CO₂ prices and a tighter situation in Ireland could increase these annual revenues. Based on the scenarios in the report, a likely reference scenario has been build that corresponds to a 25 year payback for EW1 and a 20 year payback for EW2 (Appendix 5). As discussed in Section 1.1, the expected generation capacity shortage in Ireland is an important driver of this project.

In conclusion, a shorter exemption period will prejudice the possibility of obtaining financing as envisaged and may result in the project no longer being viable. The same counts for a review after a number of years¹³ as such a review caps the upward potential of the project without compensating the downward risk.

13 As in the BritNed case

¹² This is fundamentally different from for instance BritNed which is build around the future consisting of good and bad years of the past. An additional difference is that there is no market price reference in Ireland to benchmark the revenues, which is why the revenue projections are based on a model that simulates to potential generation cost savings from using the interconnector.



1.7. PROPOSED ACCESS REGIME

Long term capacity contracts are crucial to the financing of the project. IMERA therefore proposes that access to the interconnector is provided using long term physical capacity rights. These rights will be fully allocated at the beginning of the project via an open season type of auction process.

Open seasons have been run in several merchant projects, such as the BBL Gas Interconnector between the UK and the Netherlands and the Rotterdam Gate LNG Terminal (the Netherlands), The Dragon LNG Terminal (UK) and the Isle of Grain LNG Terminal (UK).

As typical with many of these open seasons type processes an independent third party will manage this process on behalf of IMERA. The open-season will be run for a period of 30 days. Sealed bids must be submitted before the end of the open season:

- To qualify for participation in the open season, entities must meet predetermined credit worthiness standards.
- All entities that meet the minimum standards will be treated equally in the evaluation process.
- Bids will be evaluated and capacity awarded so as to result in the greatest total net present value to IMERA as determined by evaluating the requested capacity, term of service, price and other commercial terms.
- Because long term capacity contracts are crucial to the financing of the project, IMERA will specify a minimum term for bids (e.g. ten years).

IMERA intends to set a reserve price on the interconnector. This reserve price will be reflective of IMERA's operating costs, debt servicing requirement and a fair/reasonable rate of return. IMERA is incentivised to keep this reserve price low to ensure that there is demand for capacity on the interconnector. A reserve price is necessary to make the project viable because a 700 MW interconnector, in contrast to a 350 MW interconnector, will be less congested. In hours without congestion, the auction allocating the transmission capacity rights will not generate revenues, because in these hours there is less demand than supply for these rights so that the price can go to zero, even though the rights have a value that corresponds to the generation cost savings that can be made from using them.

To prevent users from withholding capacity, "Use it or Loose it" will apply but users will have the opportunity to sell their capacity in the secondary market. A secondary market will be facilitated comprising explicit auctions from year-ahead base load down to an hourly day-ahead market.

Even though the proposed access regime is inline with the current RTPA regime, an exemption from this RTPA regime eliminates the risk and potential delays associated with a separate approval process of the proposed regime and also eliminates the risk that the RTPA regime changes during the exemption. Eliminating this kind of regulatory risk is crucial for a merchant project.

On the completion of the open season process, IMERA will publish a report that will include the identities of the parties that purchase capacity, the term and the amount of reserved capacity. The good practice of the IFA interconnector between France and the UK, see Appendix 7, will be followed.



2. DEMONSTRATION FULLFILLMENT OF EXEMPTION CRITERIA

2.1. CRITERIA A

The investment in the interconnector enhances competition in electricity supply

The construction of the East West Interconnectors between Great Britain and Ireland will provide the necessary link to enable UK and Irish generators to compete in an expanded market place. As discussed in Section 1.3, one of the benefits of the interconnector (regardless of the access issues) is that it enhances competition in electricity supply.

2.2. CRITERIA B

The level of risk attached to the investment is such that the investment would not take place unless an exemption was granted

This is a major investment project that would cost 184 € per customer if paid by the Irish customers. In comparison, Estlink would have cost "only" 90€ per customer to the Estonian customers, which was an important driver in the approval process of this merchant project.

The range and level of risk undertaken by IMERA is considerable and includes, but is not limited to, construction and technical risks, environmental opposition, operational risk (e.g. supply and credit risk), competing project risk, regulatory risk outside the scope of the exemption and competitive wholesale energy price risks. The individual and combined magnitude of these risks is significant.

The principle risks to the East/West Interconnectors project are:

- <u>Construction and technical risks:</u> relating to this complex engineering project:
 - If the cable laying timeframe is delayed due to cable manufacture or problems during cable testing, the project could be delayed by many months as it is not possible to lay the cable in the winter time. Another risk is that there may be unexpected conditions on the seabed that were not identified in the initial seabed surveys leading to significant cost overruns. A break in the cable due to external forces such as ships' anchors and construction activities, which are not part of the project, may delay the construction and the coming into operation of the cable or make it impossible to utilize the cable.
 - Delays often present themselves during the testing phase of a newly installed HVDC interconnector. There are three objectives of these tests: to prove the performance of the interconnector plant; (2) to demonstrate compliance with the relevant grid codes and connection conditions; and (3) to confirm no unexpected interactions with the AC system at each end. There is significant uncertainty as the interconnector operator is reliant upon a range of external factors including network and market conditions at both



ends allowing power to flow at economical rates.

- Environmental Opposition:
 - Although the technology chosen by IMERA is environmentally benign, we are nonetheless concerned that there may be environmental opposition to the project on basis that the interconnector could be used to import nuclear sourced electricity from the UK in to Ireland.
 - It is important to note that there have been a number of high profile environmental campaigns in Ireland against energy projects; the most significant one being the Shell natural gas pipeline in the west of Ireland, this project has been delayed by many years. There has also been similar opposition recently to gas pipelines in Wales.
 - The biggest risks among other major undersea projects have been environmental opposition. The Basslink, Cross Sound Cable and Galatina-Arachthos electricity interconnectors all faced higher costs and delays in operations due to environmental opposition.
- <u>Operational Risks</u>: operational or availability problems may have an adverse impact on revenue.
 - Cable damage due to a ships anchor snag could lead to an outage of up to three months. Insuring for these risks can be difficult.
 - IMERA is also potentially exposed to counter-party credit risk, where a counter-party is in payment default and has insufficient security cover in place to cover all outstanding amounts.
- <u>Competing projects risks:</u>
 - The East West Interconnectors are a direct competitor to the existing Moyle Interconnector between Scotland and Northern Ireland. The Moyle Interconnector is run on a not for profit basis by Northern Ireland Energy Holdings and has any revenue shortfalls recovered through Northern Irish Use of System charges.
 - The CER is running a competition to design and build a UK Ireland interconnector. This would include some sort of guaranteed revenue support from Irish Use of System charges and ownership by the State. This is a potential_competitor to IMERA.
- Regulatory risk outside the scope of the exemption:
 - The Irish wholesale market is organised as a gross mandatory pool, which was launched the end of 2007. As this market is very young, its trading arrangements are likely to be subject to changes, which are not necessarily favorable for the use of the interconnector.
 - There is also a risk that the specific treatment of interconnectors in the trading arrangements changes altering the economic viability of the interconnector



The total cost of the planned investment is extremely large, the project's capital and operating costs will be met from risk capital, without mandated guarantees of future use of system charges or other forms of bankable advance sales, other than those freely negotiated in the market. IMERA is building both interconnectors at its own risk.

IMERA considers the exemption is essential to allow it to earn a return commensurate with the risk that it is taking. IMERA will not be in a position to proceed with the development of this necessary and strategically important interconnector if the exemption is not granted, as IMERA believes that it would not be possible to finance. The importance and justification of the exemption is also discussed in Sections 1.5 to 1.7.

2.3. CRITERIA C

The interconnector will be owned by a natural or legal person that is separate at least in terms of its legal form from the relevant system operators to whose systems that infrastructure will be connected

IMERA is a fully separate legal entity that is totally independent from the system operators in both Ireland and Great Britain.

2.4. CRITERIA D

Charges will be levied on users of the interconnector

The East West Interconnectors will be exclusively paid for by its users. Capacity will be reserved through an open season type of auction process. All of the capital investment and ongoing operating cost will be recovered through these mechanisms. No part of the East West Interconnectors costs will be recovered through regulated transmission charges.

2.5. CRITERIA E

Since the partial opening referred to in Article 19 of Directive 96/92/EC, no part of the capital or operating costs of the interconnector has been recovered from any component of charges made for the use of transmission or distribution systems linked by the licensee's interconnector

This is a new interconnector and no costs have been or will be recovered through use of system charges in either Ireland or Great Britain.

2.6. CRITERIA F

The exemption is not detrimental to competition or the effective functioning of the internal electricity market, or the efficient functioning of the regulated system to which the interconnector is connected

As discussed in Section 1.7, the proposed access regime is market conform, nondiscriminatory and inline with the RTPA regime. As discussed in Section 1.4, additional



market power remedies have been discussed and agreed between IMERA and the regulators to guarantee that the use of long term contracts is not to the detriment of competition. The agreed market power remedies will in fact enhance competition, whatever the outcome of the auction process.



3. APPENDICES

APPENDIX 1: MAP





APPENDIX 2: CONSENTS REQUIRED

IRL/UK consents plan (Land and Marine)

| Ref | Location | Licensing | Permit | Time to obtain | Submit | Receive | Responsible | Primary / Secondary |
|-------------|---|----------------------|---|-------------------------|-------------|---------------------|-------------|------------------------|
| | | | | Consent | Application | Consent | - | Consent |
| IRPP 1.0 | Land Cable Route, Converter Station, Access Road Seek Notice from ABP that development is a SID (Strategic Infrastructure Development) Project as defined in Act. | An Bord Pleanála² | Planning permission under Planning and Development Acts 2000-2006 | c. 6 weeks | | c. 6 weeks | DBCL⁴/WYG | Primary |
| IRPP 1.1 | Land Cable Route, Converter Station, Access Road Planning Application Submission | An Bord Pleanála | Planning permission under Planning and Development Acts 2000-2006 | c. 13 weeks | | c. 13 weeks | DBCL/WYG | Primary |
| IRPP 1.2 | Land Cable Route, Converter Station, Access Road consideration of application | An Bord Pleanála | Planning permission under Planning and Development Acts 2000-2006 | c. 16 weeks | | c. 16 weeks | DBCL/WYG | Primary |
| IRPP 1.3 | Land Cable Route, Converter Station, Access Road Possible Further Information sought | An Bord Pleanála | Planning permission under Planning and Development Acts 2000-2006 | To be determine d | | To be determined | DBCL/WYG | |
| IRPP 1.4 | Land Cable Route, Converter Station, Access Road Possible Oral hearing | An Bord Pleanála | Planning permission under Planning and Development Acts 2000-2006 | To be determine d | | To be determined | DBCL/WYG | |



| IRPP 1.5 | Land Cable Route, Converter Station, Access Road Formal decision | An Bord Pleanála | Planning permission under Planning and Development Acts 2000-2006 | c. 24 weeks Subject to above | | c. 24 weeks Subject to above | DBCL/WYG | Compliance Conditions may refer to other Statutory authorities (e.g. DoEHLG ⁵ (Archaeology), Health & Safety Authority, etc.) |
|-------------|--|---------------------|---|---------------------------------------|--|---------------------------------------|----------|--|
|-------------|--|---------------------|---|---------------------------------------|--|---------------------------------------|----------|--|

| Ref | Location | Licensing | Permit | Time to obtain Consent | Submit Applicati on | Receive Consent | Responsi ble | Primary / Secondary Consent |
|--------------|--|---------------------|---|---|---------------------------|--------------------|-----------------|--------------------------------|
| IREIS1. 1 | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment Landscape & Visual | An Bord Pleanála | Planning permission under Planning and Development Acts 2000-2006 | c. 8 weeks (may overlap or run concurren tly) | | c. 8 weeks | DBCL/ WYG | Primary |
| IREIS1. 2 | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment Flora & Fauna (Spring optimum time) | An Bord Pleanála | Planning permission under Planning and Development Acts 2000-2006 | c. 8 weeks (may overlap or run concurren tly) | | c. 8 weeks | DBCL/ WYG | Primary |
| IREIS1. 3 | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment Archaeology | An Bord Pleanála | Planning permission under Planning and Development Acts 2000-2006 | c. 8 weeks (may overlap or run concurren tly) | | c. 8 weeks | DBCL/ WYG | Primary |
| IREIS1. 4 | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment <i>Construction</i> Access | An Bord Pleanála | Planning permission under Planning and Development Acts 2000-2006 | c. 8 weeks (may overlap or run concurren tly) | | c. 8 weeks | DBCL/ WYG | Primary |



| IRCP1 | Transport routes from port to Converter Station | Each respective Local Authority on route | Load Permit | Within Constructi on planning timelines TBD – Valid for 3 | WYG / Penark | Secondary |
|-------|--|--|-------------|---|-----------------|-----------|
| | | | | months | | |



| Ref | Location | Licensing | Permit | Time to obtain Consent | Submit Applicati on | Receive Consent | Responsible | Primary / Secondary Consent |
|--------|--|--|---|---|---|--|---|-----------------------------------|
| IRFL1 | Mean High Water to 12 Mile Limit (Site investigation works) | Department Of Agriculture Fisheries and Food | Foreshore License | c. 5 - 6 months (No Statutory Time Frame) | 27/11/07 | Public Notificatio n in progress | WYG | Primary |
| IRFL2 | Mean High Water to 12 Mile Limit (Cable Laying) | Department Of Agriculture Fisheries and Food | Foreshore License | c.6 - 12 Months (No Statutory Time Frame) | No Applicati on Submitte d | - | WYG | Primary |
| IRFL3 | Mean High Water to 12 Mile Limit | Department of the Environment Heritage and Local Government | Detection Device Permit (For Archeological Surveys) | c. 3 weeks | No Applicati on Submitte d | - | WYG/ Archeologist | Secondary |
| IRFL4 | Mean High Water to 12 Mile Limit | Department of the Environment Heritage and Local Government | Diving License (For archeological Surveys) | c. 3 Weeks | No Applicati on Submitte d | - | WYG/ Archeologist | Secondary |
| IRGC 1 | Arklow 220kV substation | Eirgrid | Grid connection agreement | c. 90 days | Formal applicatio n submitte d | - | ESBI | n/a |
| IRGC 2 | Great Island 220 kV substation | Eirgrid | Grid connection agreement | c. 90 days | Formal applicatio n in preparati on | - | ESBI | n/a |
| UKPP1 | Land Cable Route, Converter Station, Access Road | Gwynedd County Council ¹ | Planning permission under Town and Country Act 1990 | Potential 12 weeks to submission 16 weeks for determination by Gwynedd | May/ June | Sept/ October | WYG ^{3/} Penark/ Imera/ABB | n/a |
| UKPP2 | Land Cable Route, Converter Station, Access Road | Gwynedd County Council Department for Business, Enterprise and Regulatory Reform | Planning permission under Town and Country Act 1990 | Minimum 16 weeks for determination | June 08 | October 08 | WYG | Primary Consent |



| UKPP3 | Scheduled Monument Consent – potential impact of cable route on Dinas Dinlle ⁶ | Welsh Assembly Government and Cadw | Section 2 (2) Ancient Monuments and Archaeologic al Areas Act 1979 Ancient Monument Wales Regulations 2001 | 13 weeks | July 08 | October 08 | WYG | Secondary Consent |
|--------|---|---|---|--|---|---------------|--------------------|----------------------|
| UKPP4 | Cable crossing of existing Seawall/flood defence ⁷ | Environment Agency (Wales) Bangor Office | By-Law Consent under Water Resources Act 1991 and Land Drainage Act - By-Laws 1991 | Usually 2 months but EA (Wales) have indicated can be achieved within 4-6 weeks | Sept 08 | Dec 08 | WYG/ Contractor | Secondary Consent |
| UKGC 1 | Pentir 400 kV | NGC | Grid connection agreement | c. 90 days | Formal applicatio n submitte d | - | ESBI | n/a |
| UKGC 2 | Pembroke 400 kV | NGC | Grid connection agreement | c. 90 days | Formal applicatio n in preparati on | - | ESBI | n/a |



| Ref | Location | Licensing | Permit | Time to obtain Consent | A | Submit Applicat ion | Receive Consent | Responsibl e | Primary / Secondary Consent |
|-------------------------|--|--|---|------------------------------|-----|---------------------------|--------------------|-----------------|-----------------------------------|
| UKPP5 9 | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment (Flood Risk/Sea Defense, Drainage) | Gwynedd County Council EA (Wales) | Planning permission under Town and Country Act 1990 EIA Regulations | 16 Weeks | Jur | าe 08 | October 08 | WYG | Primary Consent |
| UKPP6 9 | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment (Ecology) | Gwynedd County Council CCW | Planning permission under Town and Country Act 1990 EIA Regulations | 16 Weeks | Jur | าe 08 | October 08 | WYG | Primary Consent |
| UKPP7 9 | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment (Archaeology) | Gwynedd County Council Cadw | Planning permission under Town and Country Act 1990 EIA Regulations | 16 Weeks | Jur | าe 08 | October 08 | WYG | Primary Consent |
| UKPP8 9 | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment (Air Quality& Noise during construction) | Gwynedd County Council | Planning permission under Town and Country Act 1990 EIA Regulations | 16 Weeks | Jur | ne 08 | October 08 | WYG | Primary Consent |
| UKPP9 9 | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment (Landscape and Visual Assessment) | Gwynedd County Council | Planning permission under Town and Country Act 1990 EIA Regulations | 16 Weeks | Jur | ne 08 | October 08 | WYG | Primary Consent |
| икрр1 0 ⁹ | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment (Highways and Transportation) | Gwynedd County Council | Planning permission under Town and Country Act 1990 EIA Regulations | 16 Weeks | Jur | าе 08 | October 08 | WYG | Primary Consent |
| UKPP1 1 ⁹ | Land Cable Route, Converter Station, Access Road Environmental Impact Assessment (Socio Economic) | Gwynedd County Council | Planning permission under Town and Country Act 1990 EIA Regulations | 16 Weeks | Jur | าe 08 | October 08 | WYG | Primary Consent |



| Ref | Location | Licensing | Permit | Time to obtain Consent | Submit Applicati on | Receive Consent | Responsible | Primary / Secondary Consent |
|------|--|--|---|------------------------------|-------------------------------|------------------------------------|-------------|-----------------------------------|
| UKM1 | Mean High Water to limit of UK territorial waters | Crown Estate | Lease for use of seabed under Crown Estates Act 1961 (Section 3) | One year | April 2008 | April 2009 | OSS | Primary |
| UKM2 | Mean High Water to limit of UK territorial waters | Marine Fisheries Agency (MFA) | Consent under Coast Protection Act 1949 (Section 34) | Six months | May/June 2008 | Novembe r/ Decembe r 2008 | OSS | Primary |
| UKM3 | Mean High Water to limit of UK territorial waters | Marine Fisheries Agency (MFA) | Consent under Food & Environment Protection Act 1985 | Six months | May/June 2008 | Novembe r/ Decembe r 2008 | OSS | Primary |
| UKM4 | Caernarfon Harbour Jurisdiction | Caernarfon Harbour Trust | The Caernarfon Harbour Revision Order 1989 | Four months | October/ Novembe r 2008 | February/ March 2009 | OSS | Primary |
| UKM5 | Cable/pipeline crossing | DEFRA | Consent under Food & Environment Protection Act 1985 | Four months | October/ Novembe r 2008 | February/ March 2009 | OSS | Secondary |
| UKM6 | Cable crossing | Hibernia Atlantic | Crossing agreement | Two months | January 2009 | March 2009 | OSS | Secondary |

*No sand-wave pre-sweeping anticipated **While there are UKOAA/Irish oil/gas license blocks in the area, there are no active/discontinued pipelines in the area

²The permit for all the areas will be covered in a single application process to An Bord Pleanála (Irish Planning Board).

³White Young Green – Civil, Structural, Environmental, Health & Safety consultants

⁴Declan Brassil & Co. Ltd – Chartered Planning Consultants

⁵ Department of Environment, Heritage and Local Government

⁶Cadw is the historic environment service of the Welsh Assembly Government.

⁷subject to detailed discussions with both Gwynedd County Council and Cadw (Welsh version of English Heritage) – may not be necessary if works are kept to existing highway

⁸subject to detailed discussions with Environment Agency (Wales) - however they have indicated that consent is likely as the wall is part of the sea defence and there may be a need to review the specific time of the year when works can be undertaken.

⁹Subject to confirmation from Gwynedd Council as part of the ongoing screening and scoping process.

¹Planning application will seek to address all issues relating to the converter station, the cable route, the access road and temporary structures necessary for pulling the cable from the landfall



APPENDIX 7: IFA PUBLICATION REQUIREMENTS

| Data/Information | Activity | Timescales | How |
|-----------------------------------|---|--|---|
| Interconnector Access Rules | Publication of Rules | Continuous | Publication on Websites / Individual Email to IC Users |
| | Rule Change – Consultation | Min Period 10 business days | Circulation of consultation documents incl. draft changes changes (redline version of Rules) to existing Users by email |
| | Rule Change Implementation | Min Period 10 business days | Publication on Websites / Individual Email to IC Users |
| | Changes to Operational Access arrangements | Min Period 10 business days | Publication on Websites / Individual Email to IC Users |
| Eligibility Process/ Criterion | IFA User Guide | Continuous | Publication on National Grid Website |
| | IFA Application Form | Continuous | Publication on National Grid Website |
| | Specimen Letter of Credit | Continuous | Publication on National Grid Website |
| | Summary Cost Information | Continuous | Publication on National Grid Website |
| Capacity Auctions | Timetable of Periodic Auctions (except day ahead) | Published Annually – Year Ahead (Updated as Required) | Publication on National Grid Website |
| | Auction Specifications | 5 Business Day before Auction | Publication on National Grid Website |
| | Daily Auction Timetable (Specific Arrangements for Public Holidays) | Published Annually – Year Ahead (Updated as Required) | Publication on National Grid Website |
| | Daily Auction Overview | Continuous | Publication on National Grid Website |
| | All Auction Results | Target – Auction Close +4 hrs (Complete Auction Results Archive from March 2001) | Publication on National Grid Website |
| Operation Data | Planned Interconnector Outages – Short term Planned Outages | Published Annually – Year Ahead As required | Publication on Website / Individual Email to Email to IC Users |
| | Trip / Fault Information and Curtailment Information | As close to Real time as possible | Email to IC users |
| | Netted nominations / Day ahead flow profile – Intra-day Transfer limits | D-1 – D-2 and Gate +2 hrs | Publication on RTE website |