

Appendix A

Consultation Letter

Dear,

PM Group is undertaking an Environmental Impact Assessment (EIA) for the proposed Derryclure Energy Centre at Derryclure, Tullamore, Co Offaly.

The site is approximately 5km south of Tullamore on the N80 Tullamore to Portlaoise Road, adjacent to the Derryclure Landfill.

Project Description

Glanpower Ltd. (www.glanpower.com) plans to develop an Energy-from-Waste facility to be known as Derryclure Energy Centre at Derryclure, Co. Offaly (Figure 1), which will utilise biomass and mixed municipal waste materials to generate renewable energy. The proposed system can process virtually any organic material, converting it into forms of usable energy that can be consumed at the source or supplied to customers via the electricity grid.

At the core of the technology is a process known as Pyrolysis. It is a well-established technology for converting organic materials into a clean burning natural gas product, which is then used for power production, or can be further processed to produce other fuels.

Glanpower Ltd

Glanpower is a wholly owned and operated Irish Company, dedicated to the development and operation of environmentally sustainable, alternative power generation projects in Ireland and abroad. Glanpower's aim is to produce energy which is dependable, cost-effective, environmentally responsible, and which is derived from renewable sources. In order to achieve this, they make every possible use of innovative, cutting edge technology with proven green credentials.

Process Description

Pyrolysis involves the decomposition of organic substances by heating in the absence of air/oxygen. The proposed system has been developed as an efficient means of converting biomass and waste into a clean gas for use in CHP (combined heat and power) and electricity production without generating hazardous toxins that other technologies may emit.

The proposed system is explained simplistically as follows:

- Incoming fuel is thermally decomposed in a kiln at high temperature in the absence of oxygen.
- The hydrogen rich gases formed in the kiln are scrubbed to remove any contaminants.
- The cleaned gas is then combusted in an engine, gas turbine or a boiler, thereby generating energy.
- Non-volatile fractions in the fuel are turned to a solid char.
- The char is further combusted in a secondary process to deliver the heat to the kiln.

The process will be contained in a purpose designed building which will also contain; waste reception, waste conditioning, Glanpower Ltd head-office and Research and Development facilities.

The waste reception and conditioning will include a range of standard waste handling units for removal of ferrous metals, non-ferrous metals, plastics and drying of the feedstock. The building will be hermetically sealed with active air handling systems to contain and treat and odours.

Environmental Impact Statement

The proposed development falls within the scope of Schedule 5, Part 1 of the Planning and Development Regulations 2001, as amended, and therefore an Environmental Impact Statement (EIS) is required and will accompany the planning application.

The primary objective of the EIS is to identify baseline environmental and socio-economic conditions in the area of the proposed development, predict potential beneficial and/or adverse effects of the development and propose appropriate mitigating actions where necessary.

The EIS will be prepared according to the 'Grouped Format Structure' as outlined in the EPA's Guidelines on the Information to be contained in Environmental Impact Statements (EPA, 2002). The EIS will be divided into a Non-Technical Summary and chapters as follows:

- Chapter 1: Introduction
- Chapter 2: Description of the Project
- Chapter 3: Planning and Policy Context
- Chapter 4: Human Beings
- Chapter 5: Landscape and Visual
- Chapter 6: Soils, Geology and Hydrogeology
- Chapter 7: Flora and Fauna
- Chapter 8: Noise and Vibration
- Chapter 9: Water and Effluent
- Chapter 10: Air Quality and Climate
- Chapter 11: Waste Management
- Chapter 12: Material Assets - Roads and Traffic
- Chapter 13: Material Assets - Utilities
- Chapter 14: Archaeology, Architecture and Cultural Heritage
- Chapter 15: Project Sustainability
- Chapter 16: Interaction Between Environmental Factors

Waste Licence

Waste recovery activities in Ireland are required to hold an authorisation in accordance with the Waste Management Acts, 1996 to 2008. Accordingly, Glanpower will be seeking a Waste Licence from the EPA in advance of the facility

becoming operational. The Waste Licence will set limits and requirements for monitoring of any environmental emissions from the facility such as noise and air.

Please revert with any comments or queries with regard to any issues you feel may be of particular importance in undertaking this project. My email address is niall.oloughlin@pmg.ie and direct telephone number is (01) 4040700. Your input is greatly appreciated.

Yours Sincerely

Niall O'Loughlin
Associate Director

cc. Brian Gillen/Raphael McEvoy (Glanpower)

enc.

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June 9th Open Evening Welcome Letter

**Derryclure Energy Centre Open Evening
Tullamore Court Hotel, Wednesday 9th June.**

Dear community member,

On behalf of all the team at Glanpower, **I'd like to welcome you to the Derryclure Energy Open Evening, here in Tullamore**

We have organised this event to provide an opportunity for members of the community to discuss all aspects of our plans to create an **Energy Centre at Derryclure, Co. Offaly**, and give you a chance to meet with our project team directly.

Glanpower is a Tullamore & Midlands owned and operated Irish Company, dedicated to the **development and operation of environmentally sustainable, alternative power generation projects in Ireland**. We plan to develop the Derryclure Energy Centre, an Energy-from-Waste facility, at Derryclure, Co. Offaly. The Derryclure Energy Centre will utilise biomass and mixed municipal waste materials to generate renewable energy via the national electricity grid and locally. At the core of our **Irish designed and manufactured technology is a process known as Pyrolysis**. Our proposed system has been developed as an efficient means of converting biomass and waste into a clean gas for use in CHP (combined heat and power) and electricity production, but importantly, **without generating hazardous toxins that other technologies such as incineration may emit**.

The project will directly create up to **70 long-term jobs in the area (200 jobs in Construction Phase 2011)**, and countless other related economic and social benefits within the Offaly and midlands region, totalling up to €7 million per annum to the local economy. It will also produce up to 12 MegaWatts of low grade heat for local hospitals, industrial estates and housing developments, and incentivise local farmers and growers in the use of biomass crops.

Please take all the time you want to visit with our team and collect any information you may need. You are welcome to tea / coffee, refreshments and sandwiches which are available inside the conference room.

Looking forward to speaking and working together – your input is greatly appreciated,



**Brian Gillen
Managing Director, Glanpower Ltd.**

June 9th Open Evening Reply Letter

RE: Feedback from Derryclure Energy Centre Open Evening, Tullamore Court Hotel, Wednesday 9th June.

Dear _____,

On behalf of all the team at Glanpower, I would like to thank you for coming along to our Open Evening at the Tullamore Court Hotel last week.

As you know, we organised the event to provide an opportunity for members of the community to discuss all aspects of our plans to create an Energy Centre at Derryclure, Co. Offaly, and to that end, we were very happy with the attendance.

As promised that day, we took on board all of your questions and comments, and have put together the attached summary of all questions, with answers from our expert team from the Open Evening. We have made every attempt to answer all questions as concisely as possible, however feel free to contact us if you need any further clarification or information.

As a Tullamore & Midlands owned and operated company, we are committed to taking on board all comments and discussions from those in the area, and we hope this is the first part of a long and ongoing dialogue about our Energy Centre plans for Tullamore. The project will directly create up to 70 long-term jobs in the area (200 jobs in Construction Phase 2011), and countless other related economic and social benefits within the Offaly and midlands region, totalling up to €7 million per annum to the local economy.

It was good to meet with you personally - your input was greatly appreciated,



Brian Gillen
Managing Director
Glanpower Ltd.

June 9th Open Evening Letter Non-attendees

RE: Feedback from Derryclure Energy Centre Open Evening, Tullamore Court Hotel, Wednesday 9th June.

Dear _____,

We were sorry you were unable to make our Open Evening at the Tullamore Court Hotel last week.

As you know, we organised the event to provide an opportunity for members of the community to discuss all aspects of our plans to create an Energy Centre at Derryclure, Co. Offaly, and to that end, we were very happy with the attendance.

As promised that day, we took on board all questions and comments that arose, and have put together the attached summary of all questions, with answers from our expert team from the Open Evening. We have made every attempt to answer all questions as concisely as possible, however feel free to contact us if you need any further clarification or information.

As a Tullamore & Midlands owned and operated company, we are committed to taking on board all comments and discussions from those in the area, and we hope this is the first part of a long and ongoing dialogue about our Energy Centre plans for Tullamore. The project will directly create up to 70 long-term jobs in the area (200 jobs in Construction Phase 2011), and countless other related economic and social benefits within the Offaly and midlands region, totalling up to €7 million per annum to the local economy.

If you have any additional questions, please do not hesitate to contact us at info@glanpower.com or alternatively 01 4958000.



Brian Gillen
Managing Director
Glanpower Ltd.

June 9th Questions from Open Evening

Questions from Derryclure Energy Centre Open Evening on Wed 9th June 2010

Q1. When are Glanpower applying for planning?

We hope to apply for planning permission no later than August 2010 depending on the length of time it takes for a comprehensive consultation process, during which we can take on board as many comments and suggestions from local stakeholders as possible, and attend to all questions and concerns collaboratively.

Q2. When are Glanpower looking to build and operate the plant?

This depends primarily on the overall length of the planning process, including the granting of planning permission and an operational licence from the Environmental Protection Agency (EPA). We will commence construction if and when granted these permissions. It is hoped that this phase will commence mid to late 2011 and will take approximately six months to complete. Irrespective of possible delays with the planning process, we are fully committed to completing the process and bringing the economic and environmental benefits clean, green energy production to the people of Offaly.

Q3. How much residual waste from the process will go into Landfill?

Only 2.4% of all the original material taken in to the system, when processed, will require being sent to landfill. This waste material will be composed of vitrified slag (which is the inert waste material produced from liquifying and rapid cooling of residual char in the process) hard particles and inert non-recyclable materials extracted at the pre-treatment stage of the process.

Q4. Within what radius of Derryclure has Glanpower contacted residents?

During May and June we have made many attempts to contact all residents within a two kilometre radius of the proposed site, including letters, emails, replies to website enquiries, home visits and our first Open Evening in the Tullamore Court Hotel. We have also conducted a literature drop in Killeigh Village (approx 200 houses).

Q5. Are there any other plants like this in Ireland or elsewhere?

Because the Advanced Pyrolysis Technology we are bringing to Ireland uses uniquely licenced technology and is uniquely configured, there are no other Energy Centres exactly like this in Ireland. Our Advanced Pyrolysis Technology is a major advancement on Pyrolysis technologies which have existed in Europe and the US for decades, where historically it had been difficult to achieve sufficiently high efficiencies in the process to make it completely viable and sustainable. As a newly configured, highly efficient system, our unique process has addressed the main issues experienced with those older Pyrolysis systems and has to date gained the confidence of very many statutory and regulatory bodies in Ireland and abroad. First testing and operation of a one-third size Advanced Pyrolysis Unit was carried out two years ago in Stratford, England. The first full scale system is being manufactured in Thurles Co. Tipperary by OMC Engineering and is currently nearing final testing. Similar Pyrolysis technologies are well advanced in Finland and Germany.

Q6. Will there be an opportunity to visit the operational system?

We fully intend to arrange for visits to Thurles (by bus) to view the Unit in operation in late July for representative groups and interested stakeholders.

Q7. Are there plans for expansion of the Energy Centre over next 5 or 10 years?

Due to the nature of our strategic regional plans we do not envisage expanding the Energy Centre beyond what is currently planned over the next 5 year period. Some additional capacity has been allowed for within the existing floor design to allow for internal changes and development into the long-term, but this does not mean any actual building expansion in the future. Any longer-term future plans would only occur through the same, open and transparent consultation process with which we have engaged to date.

Q8. Will there be independent tests of the surrounding area (1-5 km) of air & soil quality?

As part of the Environmental Impact Study (EIS) cognisance will be taken of the background levels for air quality and soil quality and the EPA published National Dioxin Study will also be referenced. Comments will be made on the potential impacts from the process and any required mitigation will be employed to ensure that no adverse environmental affects will be generated as a result of the process.

Q9. How often will tests be carried out / emissions be monitored?

We will, as a matter of course, assess all impacts from the Energy Centre and there will be 24/7 continual, rigorous monitoring throughout the life of the Energy Centre. The monitoring programme for all parameters will be EPA suggested and approved and will be geared towards ensuring full transparency in relation to all emissions from the plant.

Q10. Will Glanpower consider extending the road development further towards the bypass?

We can only act on the instruction of the National Roads Authority (NRA) who will specify their requirements for the road and all associated junctions. We have conducted a Stage 1 Road Safety Audit which has resulted in the alteration of the original design to make the junction safer for the proposed volumes of traffic. We don't rule out the possibility of such road and path extensions into the future however, but this would be done in conjunction with the NRA.

Q11. What provisions are there in place to avoid fires or explosions e.g. shut-down mechanisms?

A full gas train management plan will be in place for the system. The key tenet of this is that gas pressures cannot build-up within the system above the target operational pressures. There is no other explosive risk in the process. Any fuel temporarily stored (no more than 1 day) will be stored in an area which is equipped with high end fire suppression capabilities in the very unlikely event of fire.

Q12. What kind of sound levels measuring will be in place e.g. for tonal issues?

As with all EPA licensed facilities we anticipate having the following noise level limits as part of the Energy Centre licence: Daytime <55dba; Night time < 45dba. Observations will be made on tonal components at the perimeter of the site should they occur and preventative measures taken immediately to rectify any issues once operational. From an operational point of view we will insist on acoustic enclosures for any potentially noisy equipment and plans are in progress to have the generators enclosed within an acoustically rated room. We are so assured and confident in our engine manufacturer's expertise and their ability to acoustically design out any impacts, that we have positioned the main Glanpower administration offices and boardroom adjacent to the engine section of the proposed building.

June 9th Open Evening FAQ
Derryclure Energy Centre

Q1. What exactly are you proposing with the Derryclure Energy Centre?

A. We are proposing a **Green Energy-from-Waste (EfW) Centre**, to be constructed in 2011 at Derryclure, Co. Offaly, located approximately 5km south of Tullamore on the N80 Tullamore to Portlaoise Road, adjacent to the Derryclure Landfill/Dump. The Centre will utilise biomass and mixed municipal waste materials to generate renewable energy in the form of electricity (up to 9.9Mw) to the national grid and heat energy for the local community.

Q2. Is this incineration?

A. No. Our technology and process should not be confused with incineration, for the following reasons:

- **It's Pyrolysis**, a well-established technology for converting organic materials into natural gas, which is then used for power production, or can be further processed to produce other fuels.
- There is no oxygen and therefore no burning involved in the Pyrolysis process, as **all oxygen content has to be removed** for the process to work. For example, it is completely different from the proposed incinerator in Poolbeg, Dublin, which is 10 times larger, burns materials with oxygen and therefore creates significant dioxins and emissions, as well as a huge carbon footprint.
- Government policy in this area is outdated and hasn't kept up to date with emerging low emissions technologies in the green energy sector. In the absence of any other licencing vehicle, it still hasn't removed Pyrolysis from a general 'incineration' categorisation under the waste incineration directive in 2000, which itself is an extension of previous, now archaic directives. Glanpower is currently in discussions with government to have this policy updated and corrected.

A simple visual chart explains this basic differences:

	<i>Fuel</i>	<i>+ Oxygen</i>	<i>+ Process</i>	<i>= Result</i>
<i>Incineration (e.g. Poolbeg)</i>	Domestic & Commercial Waste 600k Tonnes	Yes	Burning / Combustion	Significant Dioxins & High Emissions
<i>Advanced Pyrolysis (Derryclure)</i>	Biomass & Waste 60-75k Tonnes	No	Thermal Treatment (Pyrolisation) at 800°C	Negligible / no dioxins 85% Less Emissions

Q3. Are there any examples of this technology operating in Ireland or abroad already?

A. Yes. Pyrolysis based technologies are operational in Finland, Germany and the US. However, through research and development for the past number of years, Glanpower has procured an Advanced Pyrolysis System. This system underwent stringent development and testing in Stratford UK, and is being manufactured by OMC Engineering Ltd., in Thurles, Co. Tipperary.

Q4. Does it produce dioxins?

A. As illustrated in the diagram above, because pyrolysis happens at high temperatures, in the absence of oxygen, **negligible/no significant dioxins are produced**

Q5. Does it have emissions?

A. Emissions are extremely low, on average **85% lower** than the acceptable WID limits:

	<i>Level</i>	<i>WID Limit</i>
<i>CO</i>	30mg/Nm ³	100mg/Nm ³
<i>Hydrocarbons</i>	0mg/Nm ³	20mg/Nm ³
<i>Particulate</i>	10mg/Nm ³	30mg/Nm ³
<i>SO₂</i>	3mg/Nm ³	300mg/Nm ³
<i>HCl</i>	30mg/Nm ³	30mg/Nm ³
<i>NO_x</i>	100mg/Nm ³	30mg/Nm ³

All emissions will be continuously monitored by Glanpower and the EPA and will be available online 24 hours a day, 7 days a week.

Q6. Isn't it going to look awful, just on the outskirts of the town?

A. No. The Derryclure Energy Centre:

- Will have a **very modern design** and architecture, which will fit harmoniously into the local landscape
- Will make use of the **best quality, Irish supplied materials** in construction
- Will be **beautifully landscaped**, including the surrounding area
- We will redesign the road access areas and surrounds to **clean up the immediate area** and make it look inviting and aesthetically pleasing
- **It will vastly improve views of the current dump/landfill** surrounds and frontage, masking it with trees, shrubbery and the Centre itself

Q7. The access roads to Derryclure are already congested, with heavy goods vehicles (HGVs) to the dump/landfill. Isn't this going to make it worse?

A. No. The current road infrastructure, access and congestion will improve because:

- We will redesign the road to include **proper lighting, safe turning in and out lanes and footpaths**, which will significantly improve safety and reduce congestion
- We have already commissioned a **full road safety audit** to make sure the upgraded road will be of the highest standard
- There will be a **new road on the existing narrow lane** to the dump/landfill, into the Derryclure Energy Centre, with a roundabout to allow for easy flow of traffic

Q8. The current dump has faced problems in the area, and some people have complained of smells and flies coming directly from there into their homes and land. What likely effect will the Derryclure Energy Centre have on the existing dump/landfill?

A. The Derryclure Energy Centre will have the following **positive effects**:

- It will **clean up the surrounding area** and access roads
- Subject to agreement from the Council, we would be prepared to **redirect the landfill gas**, which is currently being flared, directly through the Energy Centre, to produce electricity. This would ensure odour and smell abatement.
- There are other options we can pursue with the Council, including pre-treatment of waste prior to landfill which would **help deal with irritants or odours**
- The existence of the Derryclure Energy Centre may well cause the Council to reflect on the **long-term requirement for a dump**, given its green, clean credentials and low running costs

Q9. Why should we believe that you won't, for example, deviate from the stated fuel inputs and pyrolysis process etc., once you get your planning permission and waste licence?

A. The Derryclure Energy Centre **will not deviate from our stated aims and processes** for the following reasons:

- All fuels and processes will be agreed with the EPA in advance. To deviate from that would be viewed as a substantial change in our licence and would not be permitted by the EPA.
- Furthermore, **Glanpower is a home-grown, Tullamore based company**, with the highest green credentials, not some blow-in speculator group looking for the next quick buck in the Midlands
- We want to make **Tullamore and Offaly a centre of excellence** for clean, green energy, **that will create jobs, investment and success in**

the local area, and allow us to export our locally grown knowledge and skills throughout Ireland and the world. There is no way that our plan will work if every element of its design, development and operation is not of the highest calibre and quality, and which will **stand up to rigorous scrutiny, including planning regulations and environmental protection**

- For the Derryclure Energy Centre to work properly, we have no choice but to be clean and green. If we are not, then our whole business plan will be in vain. For example, the tariff/price we will eventually charge for electricity to the national grid depends on how efficient, clean and green the process is. **If we thought we'd fail to achieve our own high standards for this project, then we would not have invested in excess of €1 million to date over 3 years in planning and preparation**

Q10. What's in it for me?

A. There are many benefits for local residents including:

- **Clean-up of road** and environs of dump/landfill
- **Better safety and lighting** on N80 road adjacent to dump
- Significant **reduction in waste charges**
- **40% Cheaper heat & energy costs** for district heating schemes
- **Electricity Security for the long-term**
- **Reduction of landfill odours**
- **Local jobs and FÁS training: 200** in construction; **40-60** in operation
- Local **Eco Tourism worth €2 million per annum**
- Knock-on benefits to local farmers and business worth **€5 million**
- **€100,000 will go to local community projects** from 2012-2014

Q11. What's in it for Tullamore and Offaly?

A. If the Derryclure Energy Centre proposal is successful, there are many important **economic and social benefits for Tullamore and Offaly including:**

- **Over €1 million already spent.** Total Project Estimate: **€30 million**
- **200 jobs** in Construction Phase 2011
- **40-60 jobs** when operational 2012
- **2011-2012: €8 million estimated boost to local economy** through employment, construction & equipment/building materials & fit-out
- **2012 onwards: €2 million annual boost to local economy** through direct employment; buildings maintenance & ancillary services etc.
- **Incentives to local farmers** for production of biomass crops (also use of forestry and agricultural residues) **worth €2 million p/a**
- Will produce up to **12 MegaWatts of low grade heat for local hospitals, industrial estates and housing developments**

Derryclure Contact Letter

Re: Proposed Derryclure Energy Centre

Date: 26th May, 2010

Dear _____,

As Managing Director of Glanpower Ltd., I want to take this opportunity to introduce our company, and our plans for an **Energy Centre at Derryclure, Co. Offaly**, which will directly create up to **50 long-term jobs in the area, and countless other related economic and social benefits** within the Offaly and midlands region.

Glanpower is a wholly owned and operated Irish Company, dedicated to the **development and operation of environmentally sustainable, alternative power generation projects in Ireland**. We plan to develop the Derryclure Energy Centre, an Energy-from-Waste facility, at Derryclure, Co. Offaly (map enclosed), located approximately 5km south of Tullamore on the N80 Tullamore to Portlaoise Road, adjacent to the Derryclure Landfill.

This is part of a nationwide strategy to build and develop energy production centres as a part of local townlands and communities in order to bring the benefits of energy creation initiatives to everybody. Such goals are not only consistent with Government policy, **but directly respond to The Midland's regional strategy**. In fact, we believe that **Tullamore and the midlands is ideally placed to become a centre of excellence** for energy production and biomass/waste management, and we intend to make our centre at **Derryclure a leading example of best practice in energy production and environmental excellence not just within Ireland but Europe and the world**.

The Derryclure Energy Centre will utilise biomass and mixed municipal waste materials to generate renewable energy via the national electricity grid and locally. **The proposed system, which utilises the most scientifically advanced, clean, green technology**, can process virtually any organic material, converting it into forms of usable energy that can be consumed at the source or supplied to customers via the electricity grid.

continued overleaf...

At the core of our **Irish designed and manufactured technology is a process known as Pyrolysis**. Pyrolysis is a well-established technology for converting organic materials into a clean-burning natural gas product, which is then used for power production, or can be further processed to produce other fuels. Our proposed system has been developed as an efficient means of converting biomass and waste into a clean gas for use in CHP (combined heat and power) and electricity production, but importantly, **without generating hazardous toxins that other technologies such as incineration may emit**.

As part of our full consultation process, we will be in touch with you personally over the coming week (if we haven't been already) to discuss our plans in further detail, answer any questions you may have, and listen to your views and input about the project.

Indeed I would like to take this opportunity to **invite you to call into our Open Evening, in the Tullamore Court Hotel (D E Williams 1 conference room) on Wednesday, June 9th anytime between 4pm & 7pm**, where our team will be at hand to discuss all aspects of the planned project with you. Tea / coffee, refreshments and sandwiches will also be served.

Please find enclosed a Glanpower Brochure, a site map, and also a synopsis of the benefits which our plans will bring to Co. Offaly and the midlands, both now and into the future.

For more information on Glanpower, who we are, our work and ethos, please log onto www.glanpower.com or email info@glanpower.com. You can also call our communications office in Dublin on 01 4958000 for more information.

Looking forward to speaking and working together – your input is greatly appreciated,

Sincerely,

Brian Gillen

**Managing Director
Glanpower Ltd.**

Encls. 1-Glanpower Brochure; 2-Derryclure Map; 3-Benefits of the Project

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July 21st Open Welcome Letter
Derryclure Energy Centre Open Evening II
Tullamore Court Hotel, Wednesday 21st July.

Dear community member,

On behalf of all the team at Glanpower, I'd like to welcome you to our follow up **Open Evening for the Derryclure Energy Centre, here in Tullamore.** We have organised this second event to provide another opportunity for local people to meet with our team and gain further information on our plans at Derryclure.

Glanpower is a Tullamore & Midlands owned and operated Irish Company, dedicated to the **development and operation of environmentally sustainable, alternative power generation projects in Ireland.** We plan to develop the Derryclure Energy Centre, an Energy-from-Waste facility, at Derryclure, Co. Offaly. The Derryclure Energy Centre will utilise biomass and mixed municipal waste materials to generate renewable energy via the national electricity grid and locally. At the core of our **Irish designed and manufactured technology is a process known as Pyrolysis.** Our proposed system has been developed as an efficient means of converting biomass and waste into a clean gas for use in CHP (combined heat and power) and electricity production, but importantly, **without generating hazardous toxins that other technologies such as incineration may emit.**

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Please take all the time you want to visit with our team and collect any information you may need. You are welcome to tea / coffee, refreshments and sandwiches which are available inside the conference room.

Looking forward to speaking and working together – your input is greatly appreciated,



Brian Gillen
Managing Director
Glanpower Ltd.

July 21st Open Evening Letter

RE: Proposed Derryclure Energy Centre

Follow-up Open Evening, Tullamore Court Hotel, Wednesday 21st July.

Dear _____,

As promised during our open evening in early June, we will be running a 2nd event in the **Tullamore Court Hotel (Goodbody Suite) on Wednesday, July 21st between 4pm & 7pm.**

This will be another opportunity to discuss ongoing plans for an Energy Centre at Derryclure, Tullamore, to take on board any further comments you may have and to address any issues outstanding.

We hope you can call into our event anytime between 4pm & 7pm where, as before, our team will be at hand to discuss all aspects of the planned project with you. Tea / coffee, refreshments and sandwiches will also be served.

If you have any questions in the meantime please do not hesitate to contact our Dublin Communications Office at 01 4958000.

Sincerely,



Brian Gillen
Managing Director
Glanpower Ltd.

July 21st Open Evening FAQs
Derryclure Energy Centre

Q10. What exactly are you proposing with the Derryclure Energy Centre?

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A simple visual chart explains this basic differences:

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<i>Advanced Pyrolysis (Derryclure)</i>	Biomass & Waste 60-75k Tonnes	No	Thermal Treatment (Pyrolisation) at 800°C	Negligible / no dioxins 85% Less Emissions

Q12. Are there any examples of this technology operating in Ireland or abroad already?

A. Yes. Pyrolysis based technologies are operational in Finland, Germany and the US. However, through research and development for the past number of years, Glanpower has procured an Advanced Pyrolysis System. This system underwent stringent development and testing in Stratford UK, and is being manufactured by OMC Engineering Ltd., in Thurles, Co. Tipperary.

Q13. Does it produce dioxins?

A. As illustrated in the diagram above, because pyrolysis happens at high temperatures, in the absence of oxygen, **negligible/no significant dioxins are produced**

Q14. Does it have emissions?

A. Emissions are extremely low, on average **85% lower** than the acceptable WID limits:

	<i>Level</i>	<i>WID Limit</i>
<i>CO</i>	30mg/Nm ³	100mg/Nm ³
<i>Hydrocarbons</i>	0mg/Nm ³	20mg/Nm ³
<i>Particulate</i>	10mg/Nm ³	30mg/Nm ³
<i>SO₂</i>	3mg/Nm ³	300mg/Nm ³
<i>HCl</i>	30mg/Nm ³	30mg/Nm ³
<i>NO_x</i>	100mg/Nm ³	30mg/Nm ³

All emissions will be continuously monitored by Glanpower and the EPA and will be available online 24 hours a day, 7 days a week.

Q15. Isn't it going to look awful, just on the outskirts of the town?

A. No. The Derryclure Energy Centre:

- Will have a **very modern design** and architecture, which will fit harmoniously into the local landscape
- Will make use of the **best quality, Irish supplied materials** in construction
- Will be **beautifully landscaped**, including the surrounding area
- We will redesign the road access areas and surrounds to **clean up the immediate area** and make it look inviting and aesthetically pleasing
- **It will vastly improve views of the current dump/landfill** surrounds and frontage, masking it with trees, shrubbery and the Centre itself

Q16. The access roads to Derryclure are already congested, with heavy goods vehicles (HGVs) to the dump/landfill. Isn't this going to make it worse?

B. No. The current road infrastructure, access and congestion will improve because:

- We will redesign the road to include **proper lighting, safe turning in and out lanes and footpaths**, which will significantly improve safety and reduce congestion
- We have already commissioned a **full road safety audit** to make sure the upgraded road will be of the highest standard
- There will be a **new road on the existing narrow lane** to the dump/landfill, into the Derryclure Energy Centre, with a roundabout to allow for easy flow of traffic

Q17. The current dump has faced problems in the area, and some people have complained of smells and flies coming directly from there into their homes and land. What likely effect will the Derryclure Energy Centre have on the existing dump/landfill?

B. The Derryclure Energy Centre will have the following **positive effects**:

- It will **clean up the surrounding area** and access roads
- Subject to agreement from the Council, we would be prepared to **re-direct the landfill gas**, which is currently being flared, directly through the Energy Centre, to produce electricity. This would ensure odour and smell abatement.
- There are other options we can pursue with the Council, including pre-treatment of waste prior to landfill which would **help deal with irritants or odours**
- The existence of the Derryclure Energy Centre may well cause the Council to reflect on the **long-term requirement for a dump**, given its green, clean credentials and low running costs

Q18. Why should we believe that you won't, for example, deviate from the stated fuel inputs and pyrolysis process etc., once you get your planning permission and waste licence?

B. The Derryclure Energy Centre **will not deviate from our stated aims and processes** for the following reasons:

- All fuels and processes will be agreed with the EPA in advance. To deviate from that would be viewed as a substantial change in our licence and would not be permitted by the EPA.
- Furthermore, **Glanpower is a home-grown, Tullamore based company**, with the highest green credentials, not some blow-in speculator group looking for the next quick buck in the Midlands

- We want to make **Tullamore and Offaly a centre of excellence** for clean, green energy, **that will create jobs, investment and success in the local area**, and allow us to export our locally grown knowledge and skills throughout Ireland and the world. There is no way that our plan will work if every element of its design, development and operation is not of the highest calibre and quality, and which will **stand up to rigorous scrutiny, including planning regulations and environmental protection**
- For the Derryclure Energy Centre to work properly, we have no choice but to be clean and green. If we are not, then our whole business plan will be in vain. For example, the tariff/price we will eventually charge for electricity to the national grid depends on how efficient, clean and green the process is. **If we thought we'd fail to achieve our own high standards for this project, then we would not have invested in excess of €1 million to date over 3 years in planning and preparation**

Q10. What's in it for me?

B. There are many benefits for local residents including:

- **Clean-up of road** and environs of dump/landfill
- **Better safety and lighting** on N80 road adjacent to dump
- Significant **reduction in waste charges**
- **40% Cheaper heat & energy costs** for district heating schemes
- **Electricity Security for the long-term**
- **Reduction of landfill odours**
- **Local jobs and FÁS training: 200** in construction; **40-60** in operation
- Local **Eco Tourism worth €2 million per annum**
- Knock-on benefits to local farmers and business worth **€5 million**
- **€100,000 will go to local community projects** from 2012-2014

Q11. What's in it for Tullamore and Offaly?

A. If the Derryclure Energy Centre proposal is successful, there are many important **economic and social benefits for Tullamore and Offaly including:**

- **Over €1 million already spent.** Total Project Estimate: **€30 million**
- **200 jobs** in Construction Phase 2011
- **40-60 jobs** when operational 2012
- **2011-2012: €8 million estimated boost to local economy** through employment, construction & equipment/building materials & fit-out
- **2012 onwards: €2 million annual boost to local economy** through direct employment; buildings maintenance & ancillary services etc.
- **Incentives to local farmers** for production of biomass crops (also use of forestry and agricultural residues) **worth €2 million p/a**
- Will produce up to **12 MegaWatts of low grade heat for local hospitals, industrial estates and housing developments**

June 21st Open Evening Answers to Questions Raised
Follow up to Questions raised at first Open Evening

When are Glanpower looking to build and operate the plant?

This depends primarily on the overall length of the planning process, including the granting of planning permission and an operational licence from the Environmental Protection Agency (EPA). We will commence construction if and when granted these permissions. It is hoped that this phase will commence mid to late 2011 and will take approximately six months to complete. Irrespective of possible delays with the planning process, we are fully committed to completing the process and bringing the economic and environmental benefits clean, green energy production to the people of Offaly.

How much residual waste from the process will go into Landfill?

Only 2.4% of all the original material taken in to the system, when processed, will require being sent to landfill. This waste material will be composed of vitrified slag (which is the inert waste material produced from liquifying and rapid cooling of residual char in the process) hard particles and inert non-recyclable materials extracted at the pre-treatment stage of the process.

Within what radius of Derryclure have Glanpower contacted residents?

During May and June we have made many attempts to contact all residents within a two kilometre radius of the proposed site, including letters, emails, replies to website enquiries, home visits and our first Open Evening in the Tullamore Court Hotel. We have also conducted a literature drop in Killeigh Village (approx 200 houses).

Are there any other plants like this in Ireland or elsewhere?

Because the Advanced Pyrolysis Technology we are bringing to Ireland uses uniquely licenced technology and is uniquely configured, there are no other Energy Centres exactly like this in Ireland. Our Advanced Pyrolysis Technology is a major advancement on Pyrolysis technologies which have existed in Europe and the US for decades, where historically it had been difficult to achieve sufficiently high efficiencies in the process to make it completely viable and sustainable. As a newly configured, highly efficient system, our unique process has addressed the main issues experienced with those older Pyrolysis systems and has to date gained the confidence of very many statutory and regulatory bodies in Ireland and abroad. First testing and operation of a one-third size Advanced Pyrolysis Unit was carried out two years ago in Stratford, England. The first full scale system is being manufactured in Thurles Co. Tipperary by OMC Engineering and is currently nearing final testing. Similar Pyrolysis technologies are well advanced in Finland and Germany.

Will there be an opportunity to visit the operational system?

We fully intend to arrange for visits to Thurles (by bus) to view the Unit in operation in late Summer for representative groups and interested stakeholders.

When are Glanpower applying for planning?

We hope to apply for planning permission no later than August 2010 depending on the length of time it takes for a comprehensive consultation process, during which we can take on board as many comments and suggestions from local stakeholders as possible, and attend to all questions and concerns collaboratively.

Are there plans for expansion of the Energy Centre over next 5 or 10 years?

Due to the nature of our strategic regional plans we do not envisage expanding the Energy Centre beyond what is currently planned over the next 5 year period. Some additional capacity has been allowed for within the existing floor design to allow for internal changes and development into the long-term, but this does not mean any actual building expansion in the future. Any longer-term future plans would only occur through the same, open and transparent consultation process with which we have engaged to date.

Will there be independent tests of the surrounding area (1-5 km) of air & soil quality

As part of the Environmental Impact Study (EIS) cognisance will be taken of the background levels for air quality and soil quality and the EPA published National Dioxin Study will also be referenced. Comments will be made on the potential impacts from the process and any required mitigation will be employed to ensure that no adverse environmental affects will be generated as a result of the process.

How often will tests be carried out / emissions be monitored?

We will, as a matter of course, assess all impacts from the Energy Centre and there will be 24/7 continual, rigorous monitoring throughout the life of the Energy Centre. The monitoring programme for all parameters will be EPA suggested and approved and will be geared towards ensuring full transparency in relation to all emissions from the plant.

Will Glanpower consider extending the road development further towards the by-pass?

We can only act on the instruction of the National Roads Authority (NRA) who will specify their requirements for the road and all associated junctions. We have conducted a Stage 1 Road Safety Audit which has resulted in the alteration of the original design to make the junction safer for the proposed volumes of traffic. We don't rule out the possibility of such road and path extensions into the future however, but this would be done in conjunction with the NRA.

What provisions are there in place to avoid fires or explosions e.g. shut-down mechanisms?

A full gas train management plan will be in place for the system. The key tenet of this is that gas pressures cannot build-up within the system above the target operational pressures. There is no other explosive risk in the process. Any fuel temporarily stored (no more than 1 day) will be stored in an area which is equipped with high end fire suppression capabilities in the very unlikely event of fire.

What kind of sound levels measuring will be in place? E.g. For tonal issues?

As with all EPA licensed facilities we anticipate having the following noise level limits as part of the Energy Centre licence: Daytime <55dbA; Night time < 45dbA.

Observations will be made on tonal components at the perimeter of the site should they occur and preventative measures taken immediately to rectify any issues once operational.

From an operational point of view we will insist on acoustic enclosures for any potentially noisy equipment and plans are in progress to have the generators enclosed within an acoustically rated room. We are so assured and confident in our engine manufacturer's expertise and their ability to acoustically design out any impacts, that we have positioned the main Glanpower administration offices and boardroom adjacent to the engine section of the proposed plant.

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