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Dear Sir/Madam,

Greener Leith response to Forth Energy proposals to build a biomass power plant on Leith Docks

Thank you for providing us with an opportunity to comment at such an early stage on the Forth Energy proposals to build a large biomass power plant on Leith Docks.

Greener Leith supports any genuine effort to develop low carbon, combined heat and power (CHP) systems as part of the mixed use regeneration of the docks. However, we believe the proposals as set out in the scoping document represent an electricity generating station, rather than a CHP plant, and as such should be rejected. Any proposal must be for a genuine CHP plant which, along with other forms of renewable generation, could be integrated into the mixed use regeneration of the docks.

Against this vision, we have considered the scoping document carefully and would wish to see the EIA consider the following, in order of priority, potential impacts of the current Forth Energy proposal.

1. Combined Heat and Power

On the basis of the scoping document, we do not believe the proposed station can reasonably be described as a 'Combined Heat and Power' (CHP) plant. Specifically we note the following from the scoping document:

- a) "The plants will also **be capable of** exporting renewable heat to nearby users." (p.ii, our emphasis added)
- b) "The plant will generate up to 200 MW of renewable electricity to the local electricity network and also, **if feasible**, renewable heat to local users..." (p.14, our emphasis added)
- c) "The plant is intended to operate as a base-load plant, operating continuously, except during maintenance downtime." (p.15)
- d) "The potential for the plant to increase its efficiency through the supply of steam and/or hot water to nearby activities **is being investigated**. It is Forth Energy's intention that renewable heat will be supplied to local users **where commercially feasible**." (p.15, our emphasis added)

We also note the absence of any heat mapping exercise; no attempt to match heat demand with heat output, no investigation of the heat demand and feasibility of retrofitting CHP pipes and risers into existing buildings; no exploration of the likely heat demand from new developments in the vicinity and no mention of the CHPQA quality assurance standard for efficiency of CHP schemes.

The Scottish Renewable Heat Strategy (2008) explicitly supports the development of CHP schemes to provide renewable heat. Likewise, the Scottish Energy Efficiency Action Plan has identified that 56% of the Scottish Government's carbon emission reduction target in domestic buildings must be delivered through CHP with district heating. It appears to us that the current proposal therefore runs counter to both the Renewable Heat Strategy and the Energy Efficiency Action Plan.

We would therefore object to the proposal as it currently stands unless a comprehensive heat mapping exercise is carried out, and the heat output from the plant matched to the likely heat demand. We would also suggest one of the conditions for approval of this plant should be that it meets CHPQA standards of efficiency.

2. Will it really generate green energy?

We are aware that current government policy regards all biomass energy generation as 'renewable.' Forth Energy claim that the plant will generate renewable, green and sustainable energy as a consequence. However the true sustainability of the energy generated depends on the source of the fuel used. We reference some academic papers below that discuss this problem in detail.

Forth Energy argue that there is no recognised certification scheme for Biomass in place at the moment. However, we note that the operators of a larger biomass plant in Port Talbot, Wales, has committed to burning only Forest Stewardship Council certified fuel. This gives some guarantee that the wood burnt in the plant will in fact be replaced.

Forth Energy may have given us a verbal commitment that they will not source fuel from 'the Russian Mafia' but it is clear that without some sort of ongoing, external, independent audit of the fuel used in the plant it will be very difficult to hold Forth Energy to account for or verify their 'green energy' claims over the longer term. We believe that this is particularly important given the significant public subsidy for 'renewable energy' the plants will be eligible for. The Environmental Impact Assessment must make proposals that will ensure that the fuel used in the plant is genuinely sustainable, and genuinely low carbon over the long term.

3. Transport

The Forth Energy consultation documents have focussed on the fact that Forth Energy intend to bring the majority of the fuel for the Biomass plants in by ship. However, working with the figures provided by Forth Energy, we note that there is still the potential for the proposed development to generate a large number of articulated lorry journeys.

Forth Energy freely admit that they have not yet given serious consideration to the use of the existing rail link to the port for transporting fuel in and ash out. This must be considered in greater detail, as the local air quality on many of the arterial routes in and around Leith is already poor, and in the case of Great Junction Street there is already a formal Air Quality Management Zone in place. Of course, it is not Forth Energy who must pay the

European Union fines, or the health costs, that will result from continued breaches of local air quality legislation in the area. It is the tax payer.

Furthermore, we note that in areas such as the Shore, existing levels of heavy goods traffic associated with the port are already giving cause for concern to local residents.

For these reasons, the Environmental Impact Assessment must give serious consideration to the likely impact of the increase in lorry journeys that a plant of this scale will generate locally, and steps that Forth Energy can take to minimise their impact. Greener Leith would like to see a commitment from Forth Energy to transport a far greater proportion of fuel and ash by rail or boat than the figure that is currently proposed in the scoping document. We would suggest, as a condition of approval, that 95% of fuel and 95% of ash be transported by ship or rail.

Lastly, we note that it will not be possible to mitigate the other air pollutants emitted by shipping biomass in large quantities from abroad. Perhaps the only way to minimise or cut Nitrogen or Sulphurous oxides (NO_x and SO_x) and particulate emissions (e.g. PM₁₀s) associated with shipping is to declare a maritime low emissions zone in the Firth of Forth, and ensure it is enforced effectively.

4. Air Pollution associated with combustion of fuel

Whilst we appreciate that the emissions from the stack of the plant will be heavily regulated by the IPPC legislation, local people are nevertheless concerned that adding a significant potential 'point source' of pollution so close to an urban area will have a negative impact on the long term health of local residents, particularly with regards to the emissions of PM₁₀'s and similar small particles.

The EIA should investigate the impact of various weather scenarios and likely fuel sources on the distribution of any pollutants emitted by the stack, and propose means for mitigating any adverse impacts.

5. Visual Impact

The Forth Energy scoping document suggests that visual impact of the proposed plant could be considerable, both locally and regionally. We note the poor quality 'artists impressions' illustrations provided by Forth Energy in their consultation documents on this aspect of the proposals. It is also unfortunate that Forth Energy felt the need to modify the orientation and proposed site for the plant towards the end of the initial consultation period.

In their consultation materials we note that Forth Energy also used examples of smaller scale plants, and plants built to higher design specifications than are likely to be applied in the Leith proposals - at least according to the Forth Energy staff we have spoken to. Therefore, we suggest the Environmental Impact Assessment must carefully consider the actual visual impact of the proposal, based on the likely appearance, massing and scale of plant that will be on the site - and not attempt to base an assessment on unrealistic case studies from abroad.

We also note that the revised proposals for the site appear to place the plant in conflict with the 'view corridors' through the site that were identified as key structural elements to Forth Ports' own Masterplan for regenerating the docks. We note that these 'view corridors' were based upon the Edinburgh Skyline study undertaken by Colvin & Moggridge. That study was much praised by UNESCO in their recent report on the management of the Edinburgh World Heritage Site as an *“important and proactive tool to protect important views...and to ensure the visual integrity of the World Heritage property and its skyline. This tool can be used to assess any new developments and specifically high-rise buildings in the future.”*

Furthermore, whilst UNESCO were re-assured by the use of view corridors in the Forth Ports Masterplan to minimise the impact of tall buildings on the skyline of the World Heritage Site, they also recommended *‘taking the relationship of the World Heritage property and the links to the docks and the river into account.’*

The EIA must therefore consider how the massing and scale of the buildings proposed for the plant will impact on views into and out of Leith and the Edinburgh World Heritage Site. This is especially important now that it would appear that Forth Energy appear be proposing to ignore previously identified view corridors, whilst more and more tourists first view of the city will be from the Firth of Forth - if public investment in a cruise liner terminal in Leith Docks is forthcoming.

It should also propose strategies to mitigate this visual impact, as we believe that the negative public perception of a very visible powerplant will have significant knock-on socio-economic impacts in the area too.

6. Socio-Economic Impacts

Forth Energy claim that the site that they have chosen is the most 'viable' site. However, we note that financially viable Combined Heat Power (CHP) and biomass projects have been implemented in recent years elsewhere in the UK at a much smaller scale.

Greener Leith therefore urges the Scottish Government to require that any EIA undertaken on the project considers the impacts of scaling down the size of the plant as we believe that this act in itself will help to mitigate many of the local residents concerns about the environmental impact of the proposals. The scale of building required to house the plant, the associated infrastructure, noise, traffic and so forth - would all be potentially lessened by scaling back the proposals. Any such scaling back must, of course, be in line with the identified heat demand mentioned under paragraph 1 above.

Furthermore, there are plans at advanced stages of development to build further residential accommodation close to the proposed site. The Environmental Impact Assessment must therefore take account of the likely impact on existing residential areas and also those planned on land nearby - even if Forth Ports do not own the land where these residential developments are likely to be built during the predicted lifetime of the proposed plant.

This is a very real concern amongst local residents that, regardless of the plants green credentials, it will be regarded by many as a 'bad neighbour' development as a

consequence of its size. Many local residents are concerned that a plant on this scale, on the proposed site, will deter further investment in the area, hindering progress towards delivering the mixed use regeneration plan in the docks area. Subject to the approval of the Scottish Government, The City of Edinburgh Council is currently proposing to borrow nearly £100 million on behalf of local tax payers in order to support further mixed use regeneration in the docks area, with Forth Ports set to benefit a great deal from this investment.

Given this, these proposals from Forth Energy, at best, betray a lack of joined up thinking amongst key stakeholders, with the private sector proposing the development of a large 'bad neighbour' plant, whilst the public sector provides a generous subsidy to promote mixed use leisure, tourism and retail led regeneration. We are unclear how the large Biomass plant proposed by Forth Energy on this site is compatible with the regeneration goals that are being pursued by other stakeholders in the regeneration process.

Furthermore, we note that the original regeneration proposals for The Harbour, Leith Docks identified much smaller 'energy centres' for providing small scale, low carbon CHP to the surrounding areas. We believe that the Forth Energy EIA should consider the environmental impacts of implementing a series of smaller CHP plants throughout the docks and compare this to the impact of building one, much larger plant.

7. Loss of Public Green Space

We note that Forth Ports do not intend to present a revised Outline Planning Application to the City of Edinburgh Council, despite the fact the proposed plant represents a significant departure from the land uses proposed in it. The site of the proposed plant is on an area that is largely designated in the current OPA as a public green space.

By developing this area, without making a commitment to allocate land elsewhere in the docks to replace this public green space, there will be a corresponding loss of public green space. The Environmental Impact Assessment should consider the scope for building the plant on alternative sites in the docks, on land zoned within the OPA for industrial use. Alternatively, we would wish that the Environmental Impact Assessment should consider the scope for Forth Energy to provide a new public park, to be constructed on Forth Ports' land at the same time as the proposed plant.

8. Noise

Whilst the site proposed by Forth Energy is located in an area that is currently used predominantly for industrial purposes, local residents are concerned about the potential for significant and/or continuous noise to be generated by the plant. Given that there are very few, if any, biomass power plants on this scale so close to residential development in the UK, we believe the onus is on Forth Energy to ensure that any noise associated with the plant, and activities related to its operation, does not have a detrimental impact on the quality of life of local residents. Therefore the Environmental Impact Assessment should consider this. Again, we emphasise the need to ensure that the EIA considers mixed use development that is likely to be built within the operating lifetime of the plant - not just that which is currently in existence.

9. Built Heritage

The proposed site for the plant would require the demolition of a Grade B listed Grain Store. Whilst Greener Leith accepts that the building is not particularly appealing from an aesthetic point of view - it nevertheless has an important role as a symbol of the docks' maritime heritage, and to many this is important. The Environmental Impact Assessment should consider the scope for alternative sites, that will not have such a negative impact on the built heritage of the area.

There may be other, more minor, heritage features on this site too. The EIA should consider whether strategies can be implemented to preserve these.

10. Further Mitigation Measures

It is clear that it will not be possible to mitigate all the local environmental impacts of the proposed biomass plant directly, particularly the more intangible socio-economic impacts. In discussions that we have had with senior representatives from Forth Energy, we proposed that Forth Energy should consider a 'community fund' that will disburse a share of the profits generated by the plant to local environmental improvement projects. Forth Energy staff have agreed to consider this. We note that there are countless examples throughout the country where similar arrangements have been made, and so we would wish that the Environmental Impact Assessment considers the scope for a similar fund in Leith.

About Greener Leith

Established in 2006, Greener Leith is an independent charity that is run and managed by local residents. Greener Leith aims to promote community involvement, sustainable development and improved public spaces throughout Leith and North Edinburgh. For more information see www.greenerleith.org

Yours Sincerely,

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