Proposed development of a Renewable Energy Combined Heat and Power Plant and associated wood chip and shavings production facility, Blairingone.

Presentation 15 February 2011

INTRODUCTION

Background

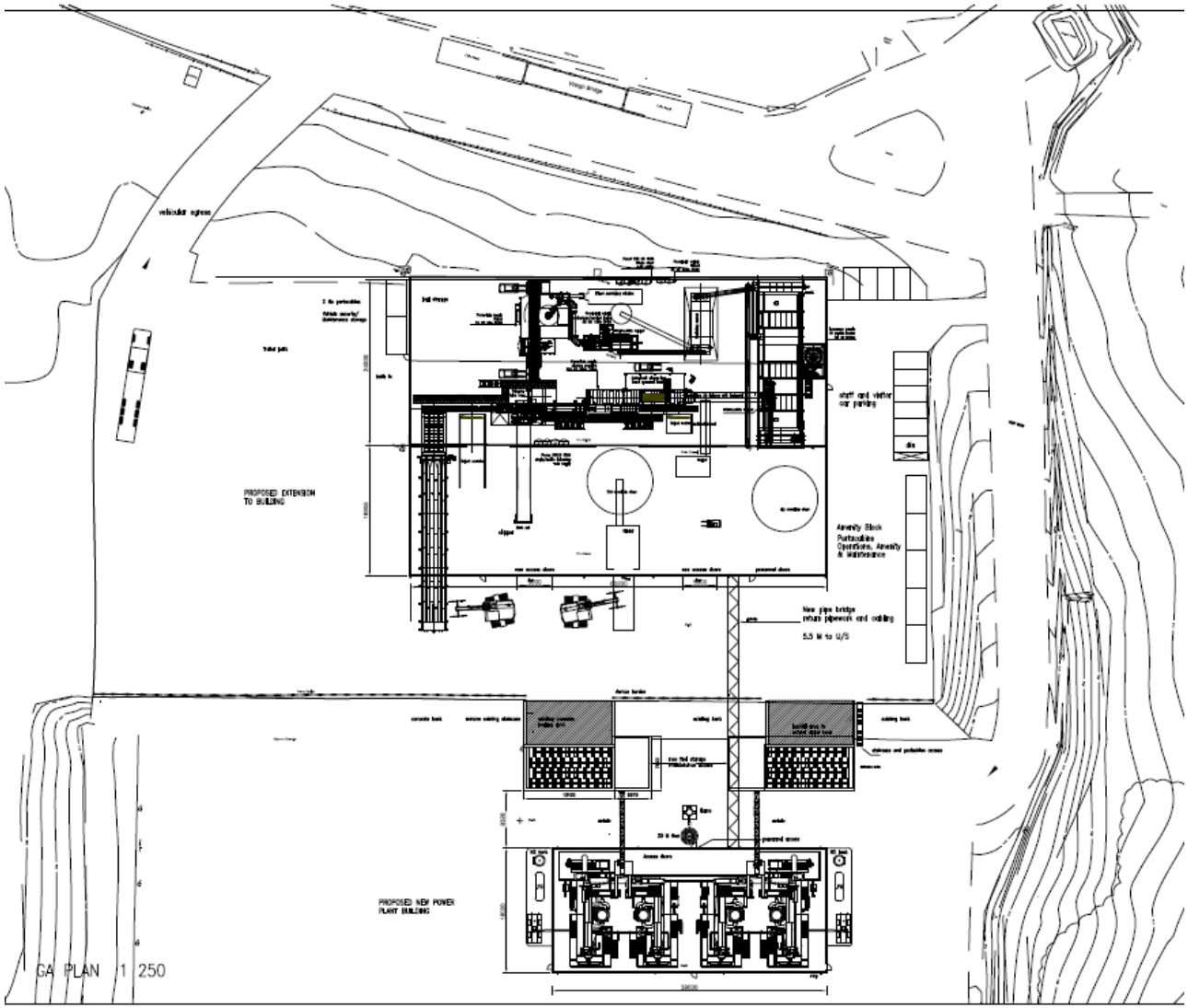
- Overview of Scheme
- Technology – CHP
- Technology – Shavings Plant

Part 2: Areas of Concern

- Air Quality
- Noise
- Traffic
- Fuel

Part 3: Questions and Answers

Overview of Scheme - Layout



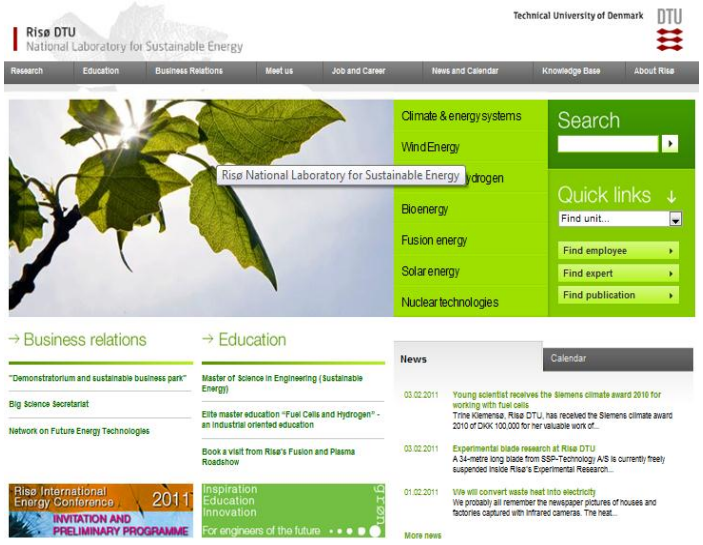
Technology – CHP Plant

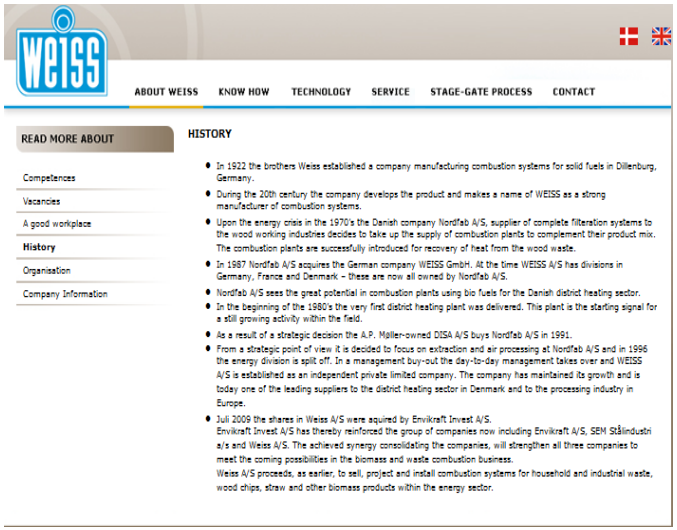
Development Partnership Between 2 Highly Respected Organisations:

Danish Technical University
National Laboratory For Sustainable Energy

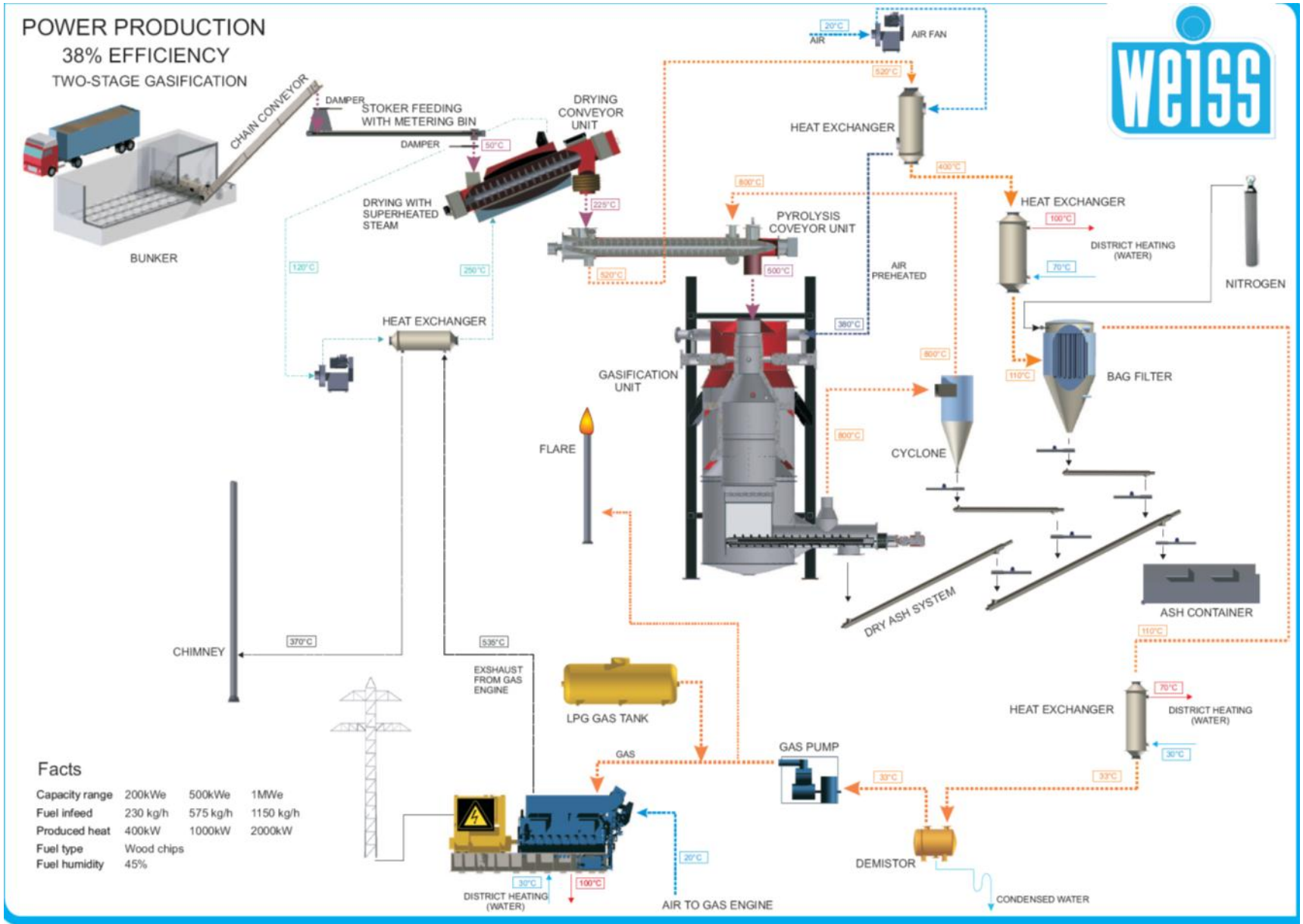
+

Weiss A/S
(Part of the Envikraft Invest)



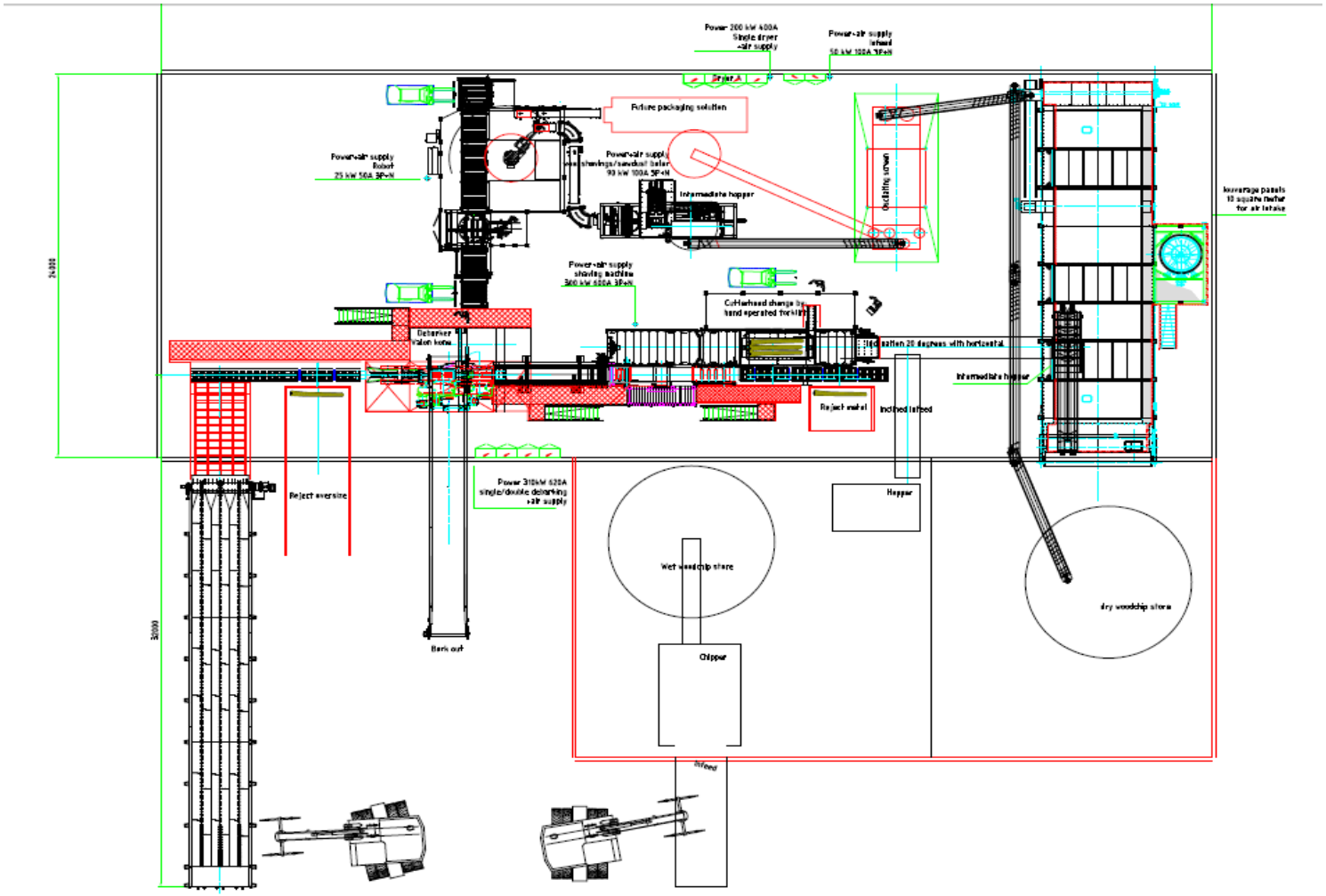


Technology – CHP Plant



Technology – Shavings Plant

Technology – Shavings Plant



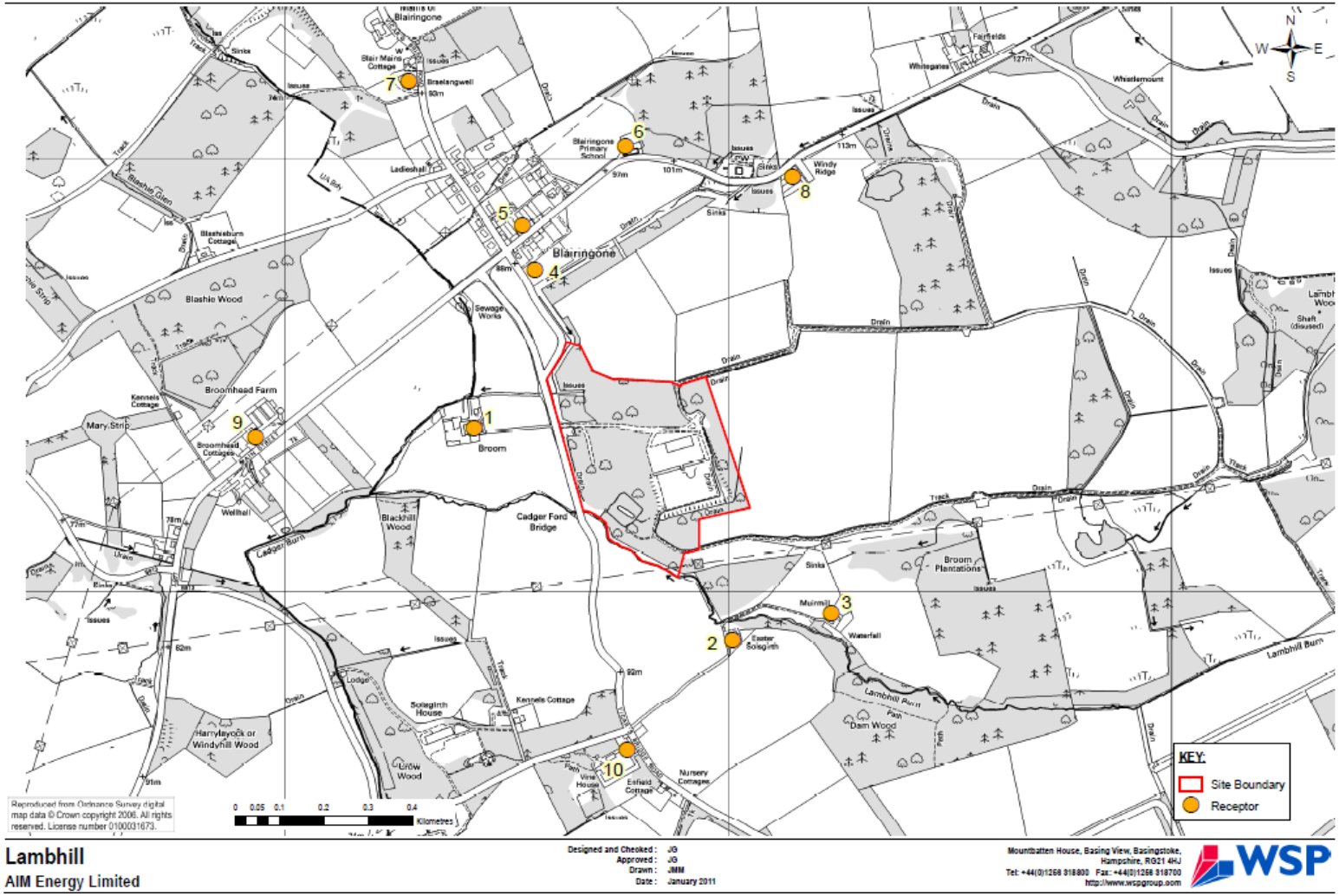
Air Quality Assessment

Table 6: Estimated background concentrations used in the assessment

Pollutant	2012
NO_x ($\mu g/m^3$)	7.46
NO_2 ($\mu g/m^3$)	5.47
PM_{10} ($\mu g/m^3$)	9.54
CO (mg/m^3)	0.07

Based on DEFRA background mapping data.

Air Quality Assessment



Lambhill
AIM Energy Limited

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Date : January 2011

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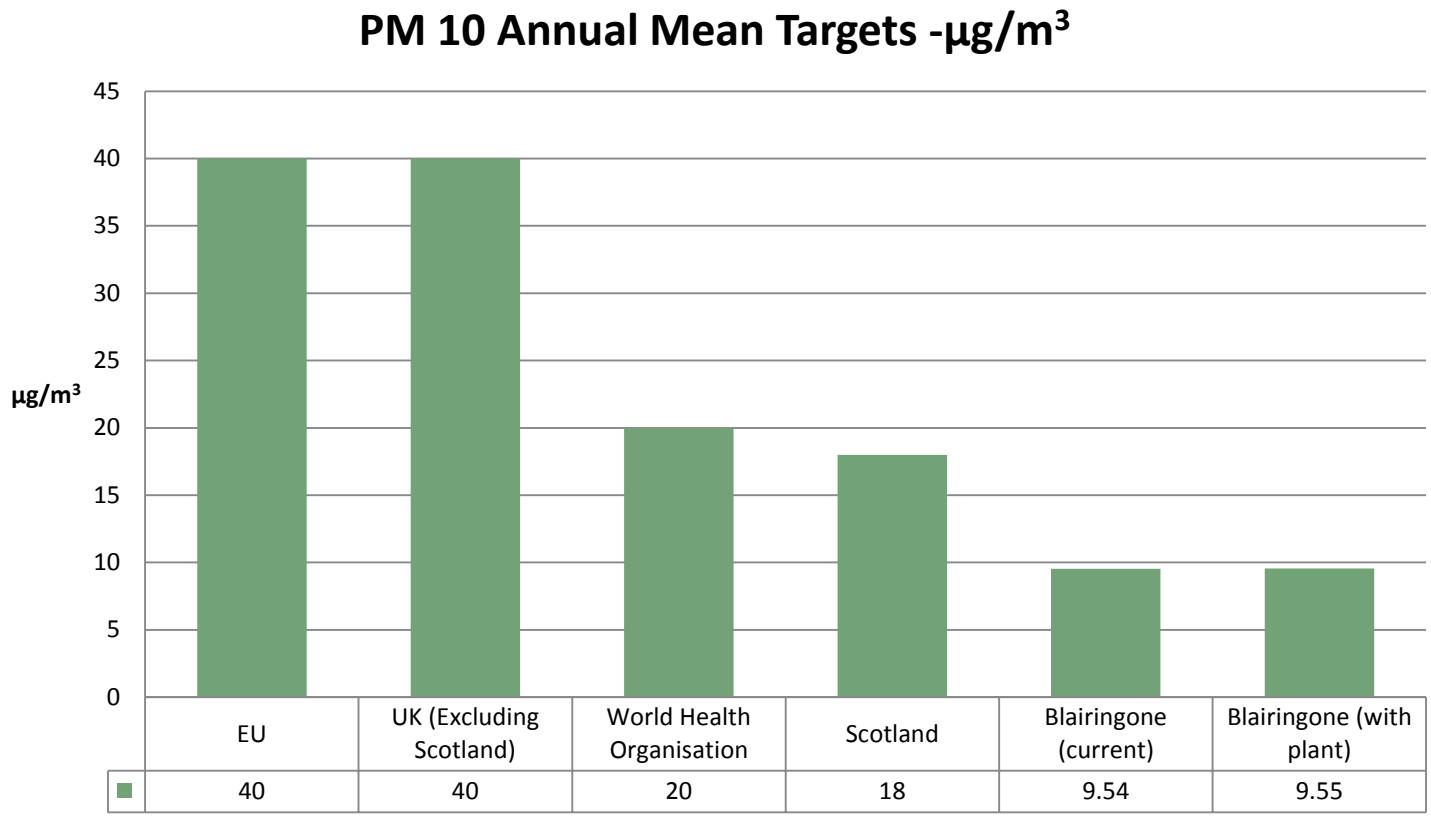
WSP

Air Quality Assessment

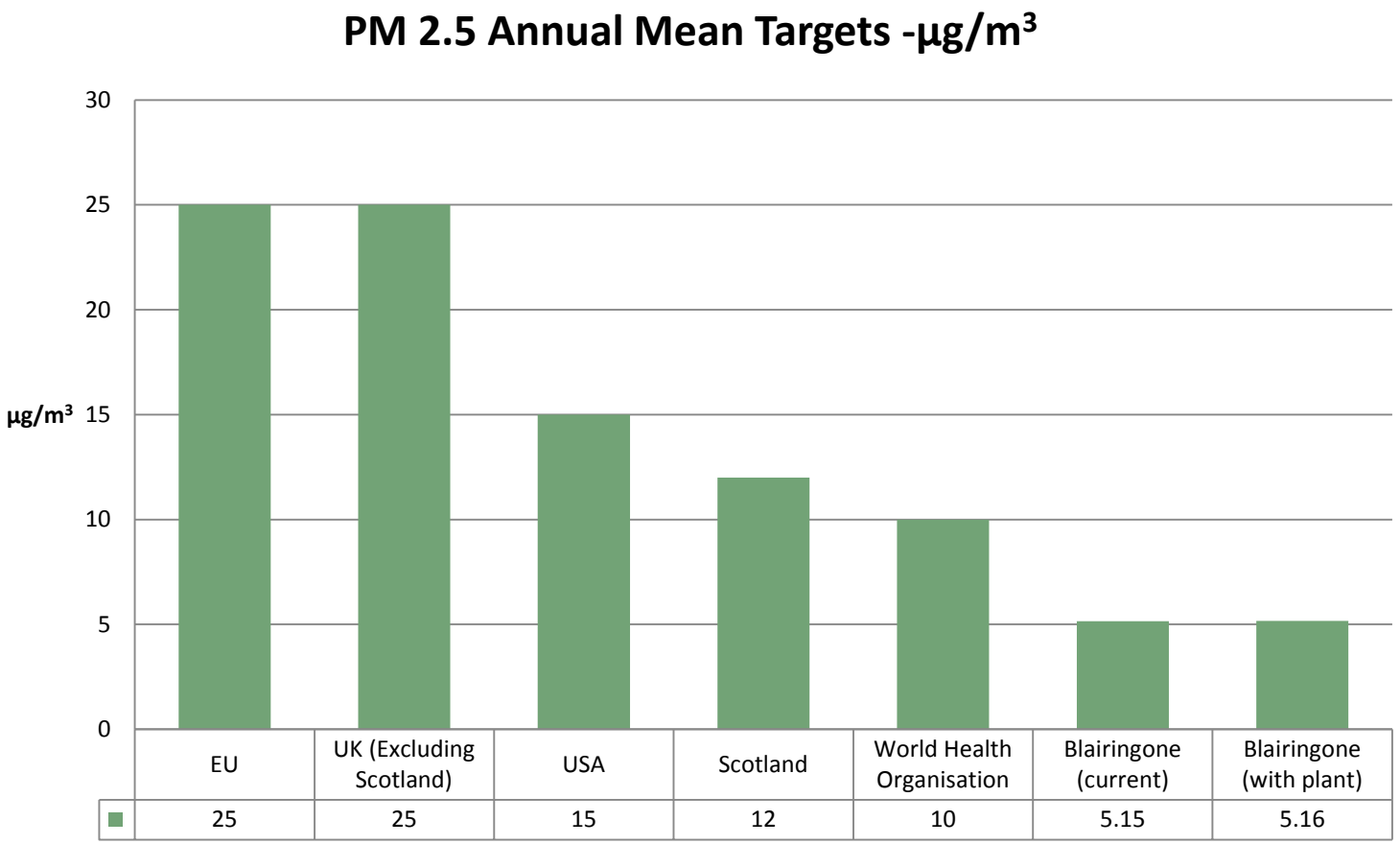
Table 7: Assessment Results at Specific Assessment Receptors

Receptor	Annual Mean PM_{10} ($\mu g/m^3$)	98.08th Percentile of Daily Mean PM_{10} ($\mu g/m^3$)	Annual Mean NO_2 ($\mu g/m^3$)	99.8th Percentile of Hourly Mean NO_2 ($\mu g/m^3$)	Maximum daily running 8 hr mean CO (mg/m^3)
1	9.55	9.66	5.87	18.65	0.60
2	9.55	9.61	5.63	19.48	0.57
3	9.55	9.61	5.68	16.42	0.63
4	9.54	9.56	5.53	13.52	0.56
5	9.54	9.56	5.52	13.43	0.56
6	9.54	9.56	5.55	14.53	0.57
7	9.54	9.55	5.50	12.87	0.56
8	9.55	9.59	5.66	15.27	0.57
9	9.55	9.61	5.72	15.79	0.57
10	9.54	9.56	5.54	13.58	0.56
AQS Objective	$18\mu g/m^3$	$50\mu g/m^3$	$40\mu g/m^3$	$200\mu g/m^3$	$10mg/m^3$

Air Quality Assessment – PM 10

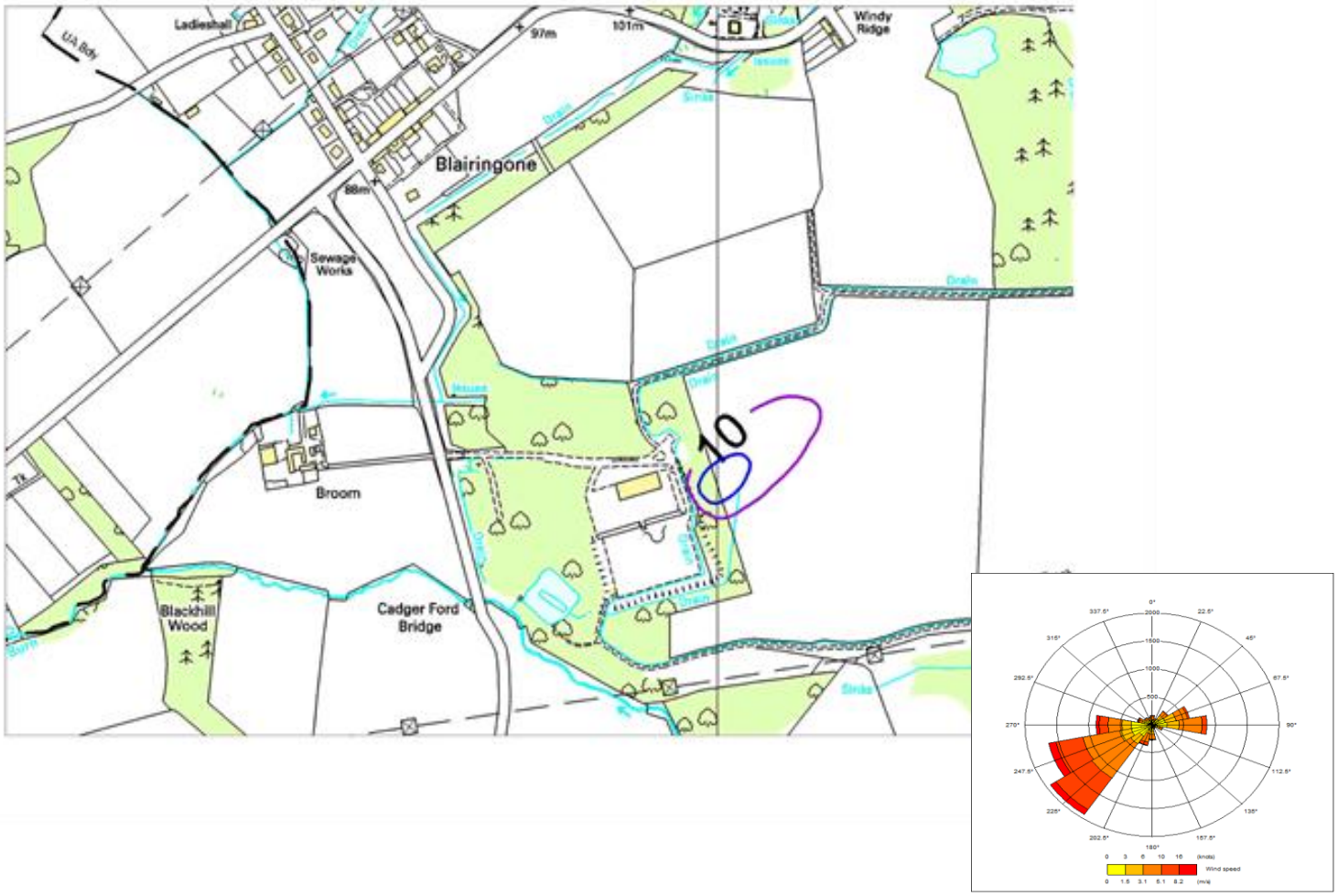


Air Quality Assessment – PM 2.5



Air Quality Assessment

Plot 1: Annual Mean NO_2 Concentrations ($\mu g/m^3$) – Contour Intervals are $5\mu g/m^3$ starting at $10\mu g/m^3$



Air Quality Assessment

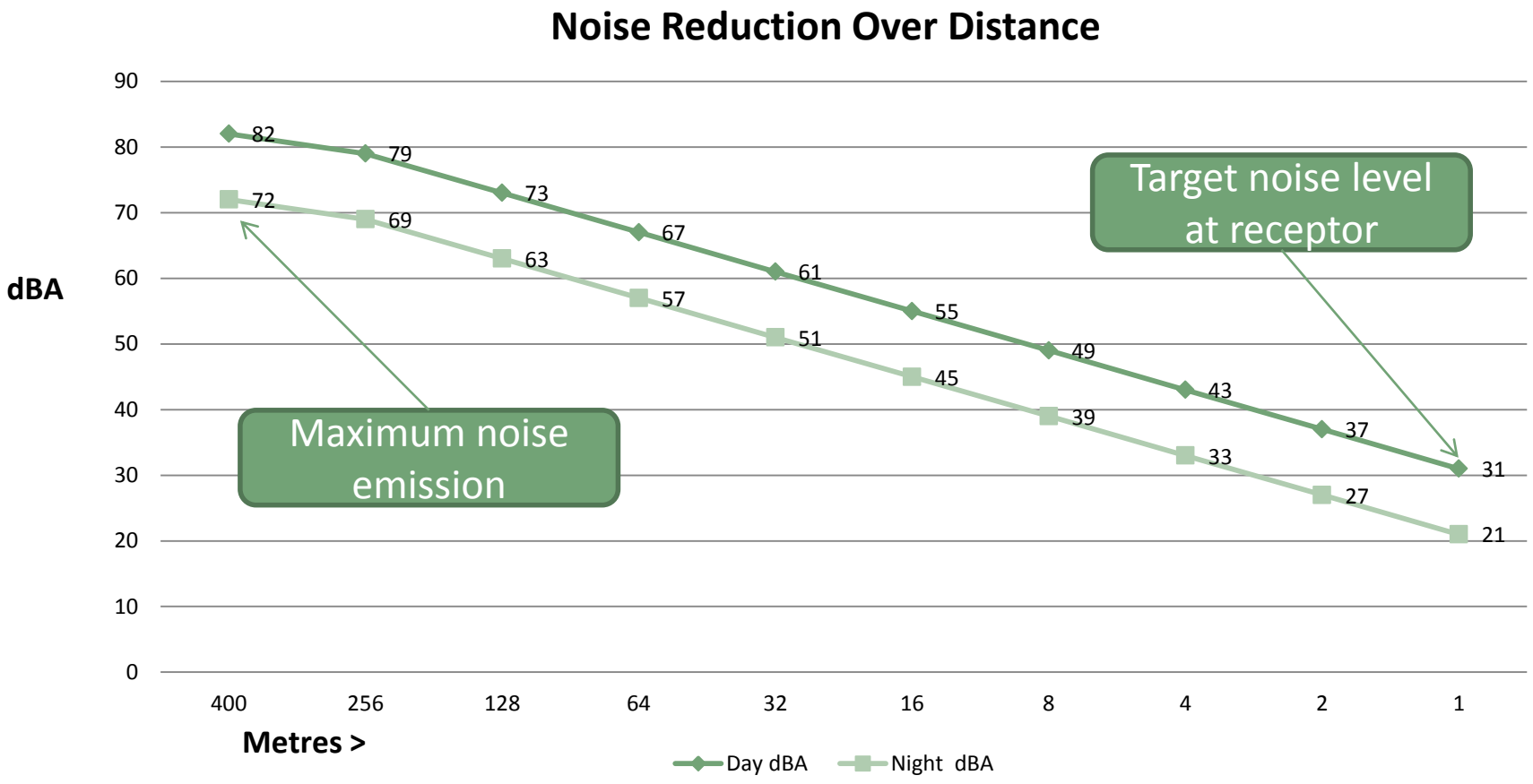
Plot 2: Annual Mean PM_{10} Concentrations ($\mu g/m^3$) – 9.7$\mu g/m^3$ contour shown

Noise

Table 5.1: Maximum cumulative operational noise limits

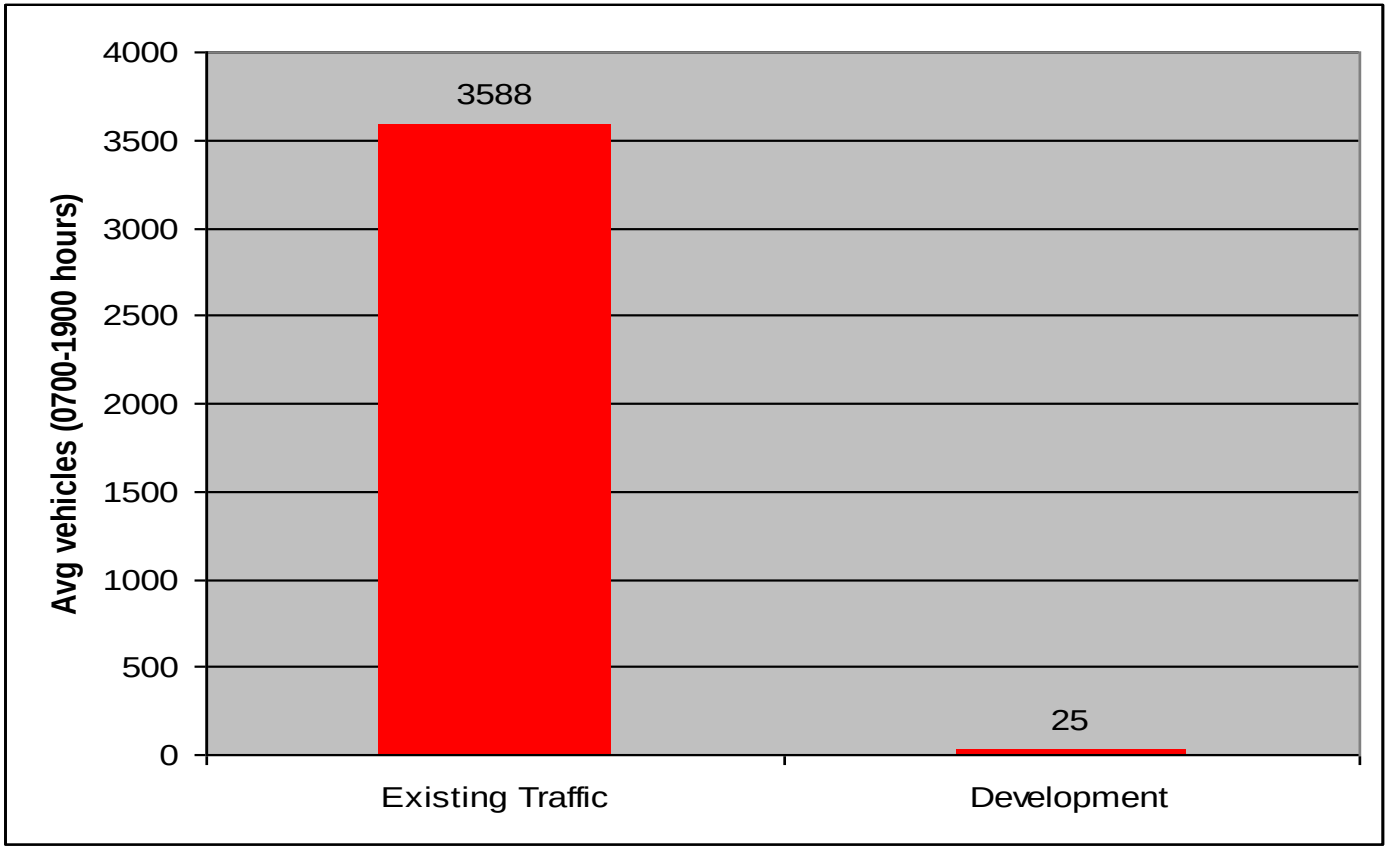
Receptor distances	Maximum cumulative operational noise limits ($L_{Aeq,T}$) (dB)	
	Daytime (0700 - 2300h)	Night time (2300 - 0700h)
Broom Farm	36	23
Easter Solsgirth	31	22
Muirmill	31	21

Noise


Noise Reduction Over Distance
dBA
90
80
70
60
50
40
30
20
10
0
82
79
73
67
61
55
49
43
37
31
72
69
63
57
51
45
39
33
27
21
Target noise level at receptor
Maximum noise emission
400
256
128
64
32
16
8
4
2
1
Metres >
Day dBA
Night dBA

Traffic Assessment

Graph 7.1: Average existing daily two-way traffic flows on A977 compared to predicted traffic generated by the proposed development.



Fuel

- No intention of using any form of waste as a fuel
- Design of plant will not allow for proper processing of waste
- Planning consent will not allow for processing of waste

- **We are prepared to enter into a Good Neighbour Agreement in respect of the commitment NOT to utilise waste as a fuel feedstock. A Good Neighbour Agreement is a voluntary agreement which is legally binding and entered into between the developer and the community. The community can enforce it terms akin to a normal contract. They have been introduced into the planning system in Scotland from 1 February this year and are considered a mechanism to govern land management/operations and are intended to help alleviate objections, such as the above.**

Summary

- A high quality investment providing employment opportunities on site and further up the supply chain – haulage and forestry
- Supporting Scotland's climate change agenda

- Not a WASTE handling facility
- Reinvigorating a brownfield site
- Imperceptible air quality impact
- Minimal visual appearance impact
- Noise and other emissions will be carefully managed

Summary

- **‘Scottish Natural Heritage strongly supports the development of renewable energy, including bioenergy, as part of the Government’s action on climate change’.**

- **‘The development of bioenergy in Scotland offers the opportunity to utilise land for forestry and energy crops in a way which could benefit both landscapes and wildlife and which can be accommodated alongside existing land management practices. The bioenergy industry provides opportunities for enhanced rural employment and can contribute to the sustainable and dynamic economy for Scotland’.**

QUESTIONS AND ANSWERS