SUBMISSIONS

for

CONCERNED COMMUNITIES OF FALKIRK & OTHERS

in

DPEA APPEAL REFS: PPA-240-2032 & PPA-390-2029

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LIST OF AUTHORITIES

[Not produced as Documents]

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[1] http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12012E/TXT&from=EN

[2] http://view.officeapps.live.com/op/view.aspx?src=http%3A%2F%2Fconventions.coe.int%2FTreaty%2FEN%2FTreaties%2FWord%2F199.doc

[3] http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2014-0225&language=EN#BKMD-30

[4] http://en.wikipedia.org/wiki/Cultural_heritage

[5] http://eur-lex.europa.eu/resource.html?uri=cellar:c370006a-063e-4dc7-9b05-52c37720740c.0005.02/DOC_1&format=PDF

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REPRESENTATION

1. The submissions are made on behalf of:

   a. Concerned Communities of Falkirk (ñCCoFò), operating in terms of the Constitution [CCoF 108] agreed at a special meeting on 6 January 2014;

   b. the following community councils in the area of Falkirk Council:

   - Airth Parish Community Council*
   - Avonbridge & Standburn Community Council
   - Blackness Community Council
   - Boôness Community Council
   - Bonnybridge Community Council*
   - Larbert, Stenhousemuir & Torwood Community Council
   - Reddingmuirhead & Wallacestone Community Council and
   - Shieldhill & California Community Council.

   [* - these CCs asked to be included after the Inquiry Statement was lodged and so are not included in the Inquiry Statement]

   c. the members of the now defunct Grangemouth & Skinflats Community Council (which objected to the Application while still in existence) and many individual objectors, who were asked to come under the CCoF umbrella at the pre-examination meeting.

THE APPLICANT AND THE APPELLANT

2. This issue arose during the course of the Inquiry and Hearing Sessions, where the Reporters appeared to note that the appeal was by ñDart Energyò.

a. However, it should be noted that the name of the Appellant given in the Form PPA received by the DPEA on 5 June 2013 was given as ñDart Energy (Forth Valley) Limitedò. Paragraph 1.1 of the Note of Appeal states that ñThis appeal is prepared by DLA Piper Scotland LLP (DLA Piper) on behalf of Dart Energy (Europe) Limited (the ñAppellantò) é ò. The Planning Application to Falkirk Council was submitted by RPS Planning and Development as Agents on behalf of Dart Energy (Europe) Limited [DE16] although the applicant was named as ñDart Energyò in the application form.

b. The uncertainty as to the company that might be carrying out the development and be responsible for complying with the conditions in the planning permission or in any license or other permission, should be a cause for concern for the Reporters and a material factor in considering whether the Reporters can be certain that there will be no significant adverse impact on the environment.

THE MOTION FOR CCoF

3. The Reporters should refuse the two appeals for one or more of the following reasons having, in particular, regard, to the precautionary principle:

a. The Environmental Statement (ES) is inadequate:

i. as it has deprived the public, including CCoF, of an effective opportunity to participate in the environmental decision-making in this application ï Article 6(4) of Directive 2011/92/EU;

ii. insofar as it has failed to assess the cultural heritage of the community;

b. For the reasons given by Falkirk and Stirling Councils;

i. Falkirk Structure Plan [FSP], ENV.8 - General Principles for Mineral Working' (1) and Falkirk Council Local Plan [FCLP] Policy EQ32 - 'General Criteria For Minerals Development' - criteria (7) and (1) for the reasons set out by Falkirk Council;

ii. Stirling Council [SC 14] opposes the grant of planning permission on the basis that:-

a) there are outstanding matters in respect of the environmental effects on hydrological and gas emission

receptors where there has been insufficient information forthcoming and on that basis, the precautionary principle applies;

b) that it is contrary to Planning Policy in respect of cumulative impact on the area

c. The proposed development is contrary to the following provisions of the Scottish Planning Policy [SPP] including the draft SPP:

i. SPP § 237 and draft SPP § 172 in respect its (i) potential for pollution of land, air and water, (ii) impact on communities, (iii) cumulative impact, (iv) impact on the natural heritage, (v) landscape and visual impact and (vi) transport impacts.

Draft SPP § 175 because proposals for gas extraction cannot be carried out without significant impacts on the amenity of local communities or the natural heritage, and cannot be adequately controlled or mitigated.

ii. Draft SPP Position Statement ï Key Issue 9 in respect of concerns relating to health and environmental risks, the precautionary principle, the requirement for a buffer zone and the input from communities.

d. The proposed development is contrary to the following criteria of the Falkirk Development Plan and the emerging Development Plan:

i. Further:

FSP ENV.8 - 1 (Mineral Developments)

FCLP Policy EQ24 (Ecological sites) (1)

FCLP Policy EQ27 (Watercourses)

FCLP Policy EQ30A (Air Quality)

FCLP Policy EQ32 ï (Criteria for Mineral developments) (1), (4), (5) and (7)

ii. Emerging Falkirk Development Plan:

Policy RW02 ï Dart has failed to prove that the development will be environmentally acceptable having regard to Policy RW03 and other LDP policies;

RW03 ï the likelihood of significant adverse impact on the environment and the local community, including impact on the amenity of communities, the landscape and visual amenity, the water environment and air quality.

e. The uncertainties surrounding the health and environmental risks are such that it cannot be determined that the proposed development will not have an adverse impact on the environment and the community;

f. There has been no appropriate assessment of the impact of the discharge into the Forth upon the Firth of Forth Special Protection Area SPA and Ramsar site [together ñthe SPAò] as required by Regulation 48 of The Conservation (Natural Habitats, &c.) Regulations 1994 and FCLP Policy EQ24;

g. The Waste Management Plan (WMP) fails to comply with the requirements of The Management of Extractive Waste (Scotland) Regulations 2010, in particular because it has failed to include ña description of the chemical substancesò as required by Regulation 11(1)(e) and Schedule 2 § (c) and accordingly planning permission may not be granted;

PRELIMINARY ISSUES

The Precautionary Principle and Environmental & Health Protection

CCoF's Position

4. CCoFôs position is that:

a. there are reasonable grounds for concern that there potentially dangerous effects on the environment, human, animal or plant health in the area of the development;

b. the science is uncertain;

c. that the UK is at a nascent stage in developing an onshore unconventional gas industry (on Dr Cuffôs evidence, 15 years behind Australia)

d. therefore the precautionary principle should be applied;

e. in applying the precautionary principle and assessing the risk, the Reporters should take into account that the risk is not acceptable to the community and the magnitude of the increase in scale of operations means that any unintended and perhaps unforeseen long term consequences will be serious for the local community

f. where there is scientific uncertainty, protective measures may be taken without having to wait till the reality or seriousness of the risks become fully apparent;

g. The precautionary principle should be invoked because of the scientific evidence regarding the effects of CBM on the environment, human, animal or plant health are uncertain and there are indications from the industry in Australia and the USA that there are potentially significant risks that have given rise to genuine public concern.

The legal position in relation to the environment

5. The obligations in relation to the environment must be understood and construed in the context of the EU policy that aims at a high level of protection for the environment and is based on the ñprecautionary principleò. It is submitted that this indicates that environmental obligations in EU Directives should be construed in a manner that supports the importance of that policy and recognises the precautionary principle.

a. TFEU Article 191(2)[1]

ñ2. Union policy on the environment shall aim at a high level of protection taking into account the diversity of situations in the various regions of the Union. It shall be based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should as a priority be rectified at source and that the polluter should pay.ò [underline added]

[1] http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:12012E/TXT&from=EN

b. This was recently emphasised in:

C-260/11 *R (on app Edwards) v Environment Agency* Adv Gen 18 Oct 2012.

ñ40. Legal protection in environmental matters, on the other hand, generally serves not only the individual interests of claimants, but also, or even exclusively, the public. This public interest has great importance in the European Union, since a high level of protection of the environment is one of the European Unionôs aims under Article 191(2) TFEU and Article 37 of the Charter of Fundamental Rights.ò [underline added]

6. The precautionary principle has been explained by the European Court of Justice (ECJ) (now the Court of Justice of the European Union (CJEU)) to the effect that where there is scientific uncertainty, protective measures may be taken without having to wait till the reality or seriousness of the risks become fully apparentò. See:

a. C-127/02 *Landelijke Vereniging tot Behoud van de Waddenzee v Staatssecretaris van Landbouw, Natuurbeheer en Visserij* [2004] ECR I-07405 [the Waddenzee case]

Advocate General:
ñ100. This rule gives concrete expression to the precautionary principle laid down in Article 174(2) EC in relation to a protection area covered by Natura 2000. The precautionary principle is not defined in Community law. It is examined in case-law primarily in so far as protective measures may be taken, where there is uncertainty as to the existence or extent of risks, without having to wait until the reality and seriousness of those risks become fully apparent. Therefore, the decisive factor is the element of scientific uncertainty as to the risks involved. However, in each particular case the action associated with the protective measures must be proportionate to the assumed risk. In that regard the Commission stated in its communication on the precautionary principle that judging what is an óacceptableô level of risk for society is an eminently political responsibility. Such responsibility can be met only where the scientific uncertainty is minimised before a decision is taken by using the best available scientific means.

101. Accordingly, the rulings of the Court did not concern a ófailure to observeô the precautionary principle in abstract terms, but the application of provisions which give expression to the precautionary principle in relation to certain areas. On the one hand, these provisions normally provide for a comprehensive scientific assessment and, on the other, specify the acceptable level of risk which remains after this assessment in each case or the margin of discretion of the relevant authorities.ò

NB: The ñcomprehensive scientific assessmentò is required before the member state can balance the scientific uncertainty against the risk and ñprotective measures may be taken, where there is uncertainty as to the existence or extent

of risks, without having to wait until ñthe reality and seriousness of the risks become apparentò.

b. T-13/99 *Pfizer Animal Health v Council* [2002] ECR II-3318

ñ139. It is appropriate to bear in mind that, as the Court of Justice and the Court of First Instance have held, where there is scientific uncertainty as to the existence or extent of risks to human health, the Community institutions may, by reason of the precautionary principle, take protective measures without having to wait until the reality and seriousness of those risks become fully apparent (the *BSE* judgment, cited at paragraph 114 above, paragraph 99, the *NFU* judgment, cited at paragraph 114 above, paragraph 63, and the judgment at first instance in *Bergaderm and Goupil* v *Commission,* cited at paragraph 115 above, paragraph *66).*

140. It follows, first, that as a result of the precautionary principle, as enshrined in Article 130r(2) of the Treaty, the Community institutions were entitled to take a preventive measure regarding the use of virginiamycin as an additive in feedingstuffs, even though, owing to existing scientific uncertainty, the reality and the seriousness of the risks to human health associated with that use were not yet fully apparent.

141. *A fortiori,* the Community institutions were not required, for the purpose of taking preventive action, to wait for the adverse effects of the use of the product as a growth promoter to materialise é
é
147. The precautionary principle can therefore apply only in situations in which there is a risk, notably to human health, which, although it is not founded on mere hypotheses that have not been scientifically confirmed, has not yet been fully demonstrated.ò

c. C-236/01 *Monsanto Agricoltura Italia v* [2003] ECR I-8206

ñ111. According to the case-law of the Court, it follows from the precautionary principle that where there is uncertainty as to the existence or extent of risks to human health, protective measures may be taken without having to wait until the reality and seriousness of those risks become fully apparent é ò

7. The precautionary principle is also recognised by the Scottish Government:

Scottish Planning Policy paragraph 132

ñ132. Planning authorities should apply the precautionary principle where the impacts of a proposed development on nationally or internationally significant landscape or natural heritage resources are uncertain but there is sound evidence for believing that significant irreversible damage could occur. Where

the precautionary principle is justified, modifications to the proposal which would eliminate the risk of irreversible damage should be considered. The precautionary principle should not be used to impede development unnecessarily. Where development is constrained on the grounds of uncertainty, the potential for research, surveys or assessments to remove or reduce uncertainty should be considered.ò [underline added]

8. The EU Commission has given advice on the precautionary principle:

Commission of the European Communities, Communication on the Precautionary Principle, COM(2000) 1 final [CCoF 139]

Summary

3. The precautionary principle is not defined in the Treaty, which prescribes it only once - to protect the environment. But *in practice*, its scope is much wider, and specifically where preliminary objective scientific evaluation, indicates that there are reasonable grounds for concern that the potentially dangerous effects on the *environment*, *human, animal or plant health* may be inconsistent with the high level of protection chosen for the Community.

4. é The precautionary principle is particularly relevant to the management of risk. é

Key Points

Page 9 - Although the precautionary principle is not explicitly mentioned in the Treaty except in the environmental field, its scope is far wider and covers those specific circumstances where scientific evidence is insufficient, inconclusive or uncertain and there are indications through preliminary objective scientific evaluation that there are reasonable grounds for concern that the potentially dangerous effects on the environment, human, animal or plant health may be inconsistent with the chosen level of protection .

9. ***Submission*** - in the present case where there is evidence from Australia and from the USA as to possible health risks from CBM production; where the known discharge from the produced water of the existing wells at Airth contains carcinogens and endocrine disrupters and there has been no proper health risk assessment, and where there is a potential risk to the environment and human health from fugitive emissions and breakdowns in the infrastructure, where it is evident that ñsignal testingò and/or base line monitoring could have been carried out prior to the Application to materially reduce the level of uncertainty regarding the risk [see Adv Gen at § 100 in *Waddenzee*], the Reporters should apply the precautionary principle to avoid the potential risk and refuse the appeal. See below re risks to environment and health risks.

Best evidence rule

CCoF's position

10. CCoFôs position is that:

    a. where witnesses for Dart gave evidence in respect of documents that were not before the inquiry, that the Reporters should reject that evidence or alternatively give that evidence very little weight.

    b. The evidential rule is the ñbest evidence rulesò which is to the effect that witnesses may not give evidence as to the contents or the meaning and effect of documents, which have not been produced. In any event even if that evidence is admissible that it should not be given any weight as CCoF and other parties were unable to cross examine and test the evidence in the absence of the documents.

       Scottish & Universal Newspapers v Gherson's Trustees 1987 SC 27

       held (1) that the best evidence rule was that the contents of documents must be proved by the documents themselves and could not be proved by parole evidence;

       observed (2) that, if the Lord Ordinary had allowed the secondary evidence to be led under reservation of the issue of competency, the pursuers' victory would in all probability have been an empty one because in these circumstances it was not improbable that a reasonable judge would have been reluctant to decide the case in the pursuers' favour upon the secondary evidence, however credible and reliable the witnesses appeared to be, because, as seemed likely, the defenders and third parties would have been in no position to test the alleged findings of the witnesses in the absence of the records themselves.

    c. The best evidence rule should also be applied in the context of the obligations under the EIA Directive that requires the public to be afforded effective participation in the environmental decision making process ï see below. Without access to the material CCoF could not effectively take part in that part of the decision making process and accordingly withholding such documentation is contrary to EU law.

Evidence to which the former comments apply

11. CCoF contend that the ñbest evidence ruleò should be applied to at least the following evidence at both the Inquiry and Hearing sessions:

a. Dartôs evidence as to what was required by DECC to obtain a PEDL licence;

b. Dr Cuffôs evidence which was based a substantial number of documents that were not produced in the ES and were not available. On page 11 of Dr Cuffôs precognition he said he had access to certain documents and other information ï annotated as what was not produced in the ES or to the Inquiry:

4.1.1.1 British Geological Survey (1997). Falkirk, Scotland, Sheet 31E, Solid Geology 1:50000 **[NOT PRODUCED]**

4.1.1.2 Dart Energy data bases, including:

(i) 2D seismic data (provided by Dart Energy) with an emphasis on fault determination comprising:

- 534km of seismic lines;
- The National Coal Board data set;
- Conventional Oil and Gas data sets.

[ONLY 10 KM OF 2D SEISMIC LINES PRODUCED DE(I) 40 and DE(I)41]

(ii) Interpretation of data from 345 wells with accompanying lithological descriptions, stratigraphical correlations and identification of faults and fault displacements comprising:

- Dart Energy and Legacy Exploration and pilot production wells drilled by Coal Bed Methane Ltd and Composite Energy Ltd;
- Inch of Ferryton conventional exploration well;
- Coal exploration wells including NCB wells and wells post privatization;
- 109 wells from the BGS data set that penetrate the Limestone Coal Formation.

(iii) Note: The majority of the above wells have been cored. Detailed core descriptions enable confident stratigraphic correlations and identification of faults and fault displacements.

[ONLY INCH OF FERRYTON (AIRTH 6) PRODUCED – DE35 Appendix 3]

4.1.1.3 Assessment of abandoned mine plans comprising:

(i) Full digital and selected hard-copy mine abandonment plans (Coal Authority). These detail:

- Details of faults and structure at sub-seismic scale (especially in hard-copy data);
- Extent of workings;
- Date of workings;
- Depth of workings;
- Depth of workings below sea-level;
- Seam thickness

[NOT PRODUCED]

(ii) Examination and assessment of all current BGS Maps, Memoirs and Economic Memoirs including BGS Map Sheets 39 (Stirling and Altoa) and 31 (Airdrie and Falkirk). Also comprising interpretations of full 1:50000 data set licensed for PEDL133 showing:

- Structure and faulting;
- Outcrop geology;
- Intrusive igneous features;
- Bed subï crop map, and

− Quaternary Superficial Drift.
[NOT PRODUCED]

c. David Goold Precognition at § 1.2.2 (page 5/6) speaks of Dart data that was made available to him, some of which was confidential, at § 3.9 he refers to Dartôs database of 77 and 52 boreholes, at § 4.2 he refers to documents not ñnormally supplied for planning applicationsò which are supplied to DECC, HSE and the Coal Authority (CA), at § 4.5.2 he refers to information supplied to DECC, HSE and CA, but none of which was made available to the Inquiry even though Mr Gooldôs evidence was based on those documents;

d. Richard Graham ï Precognition § 5.3.11 refers to ñField flow modellingò by Dart which has not been produced.

e. Douglas Bain ï Precognition. Substantial parts of the precognition regarding benefits are based on projections or other documentation not produced:

§ 3.6.11 ï ñprojections for the next five yearsò
§ 3.6.1.7 - ñclear plan to develop up to 10 wellsò
§ 3.6.2.2 ï invested in excess of £40 million
§ 3.6.2.4 ï current supply base
§ 3.6.2.6 - £10 to £20 million invested in Scotland
§ 3.6.3 ï various investment figures are given, but there is no documentation to support the estimates.

f. The precognitions continued statements that information, in which confidentiality was claimed, about chemicals in the drilling fluids, substances to be extracted in the produced water etc, would not be produced to the inquiry, but might be produced later to the Regulators, but never-the-less it was asserted that the chemicals were safe or would be safely dealt with. See amongst others:

- Mr Sloan - Precognition at § 4 re polymers; 5 ñDrilling Fluidsò; §5.3 he refers to the ñchemical nature of the rockò. No details provided.
- Andrew Buroni ï Precognition also refers to chemicals and pollutants, but details of the chemistry are not produced.
- Daniel Smyth gave evidence referring to a ñgas analysis reportò by Mr Sloan, which was not produced.

[NB: Public Health England [DE(N)2], albeit in the context of fracking fluids suggests:

ñChemicals used in fracking fluid should be publically disclosed and risk assessed prior to use. é ò

CCoF submit that the same reasoning should apply to fluids used in CBM production.]

g. Chemicals referred to in Waste Management Plan [WMP] ï see below as this raised other issues.

DEFICIENCIES IN ENVIRONMENTAL STATEMENT

Mr Gerald Brophy's submission to Falkirk Council [CCoF 2]

12. CCoF rely on the submission made by Mr Brophy, Solicitor in a letter to Falkirk Council dated 1 July 2013 [CCoF 2]. These were responded to by Dart in DE82 (Section 2).

CCoF's Position on deficiencies in the Environmental Statement

13. CCoFôs position is that:

a. the EIA and ES is only for this development, whereas the legal position is that if a smaller development is likely to followed by other developments that the whole should be subject to one EIA. It is clear from the evidence of Mr Bain and other material that if this planning appeal is allowed that further planning applications will follow for the wider development of the CBM gas field ï see ñFUTURE DEVELOPMENTS ï PRECEDENTò below. In *R v. Swale Borough Council ex parte RSPB* [1991] JPL 39 (CA) Simon Brown LJ said at p. 47:

ñThe question whether or not the development was of a category described in either schedule [to the Environmental Impact Regulations] had to be answered strictly in relation to the development applied for, not for development contemplated beyond that. But the further question arising from a Schedule 2 development, the question whether ñit would be likely to have significant effects on the environment by virtue of such factors such as its nature, size or locationò should be answered rather differently. <u>The development should not then be considered in isolation if in reality it was properly to be regarded as an integral part of an inevitably more substantial development. This approach appeared appropriate on the language of the Regulations, the existence of the smaller development of itself promoting the larger development and thereby likely to carry in its wake the environmental effects of the latter.</u> <u>In common sense, moreover, developers could</u>

otherwise defeat the object of the Regulations by piecemeal development proposals. [under line added]

In these circumstances the EIA and the ES are deficient because they have not assessed the environmental effects of what will inevitably be a larger gas field development ï a point made by Mr Brophy.

b. All the necessary environmental information requires to be provided in the ES so that the Reporters, the regulatory authorities and the public can properly evaluate the information;

c. The developer is not entitled to keep back information for the regulatory stage. Regulation naturally follows the grant of planning permission, because the regulators have to regulate the scheme as approved with all its restrictions and conditions. That is a different issue from when the information has to be provided.

d. In order to be able to have ñeffective public participationò ñeffective opportunities to participateò and a right to ñexpress é opinions and concernsò as required by Directive 2011/92/EU (the EIA Directive), the information has to be provided in the ES.

e. The ES was deficient because it did not provide information on:

- cultural heritage,
- industrial chemicals used in operations,
- analyses of naturally-occurring toxins in the produced water and gas,
- waste sludge and drill cuttings,
- potential related emissions,
- base line monitoring or signal testing
- the claimed confidential information and some of the information relied upon in precognitions and at the oral session that was not provided in the ES or as documents to the inquiry.

f. The lack of base line data on background methane emissions; water quality, air quality including for example VOCs, $NO_{x,}$ $PM^{10\ \&\ 2.5}$ means that the ES is defective in that a proper assessment cannot be made without those base line data.

g. The meaning of ñcultural heritageò has not been properly transcribed into the Town and Country Planning (EIA) (Scotland) Regulations

2011 and so has not been properly assessed, although in the context of this appeal it is covered under impacts on the community.

h. The Reporters should have concerns as to the thoroughness of the ES and in the absence of confidence in the ES, this should be a material factor in considering whether or not to allow the appeal.

Planning Circular 3/2011[2] & PAN 51

14. Planning Circular 3/2011 supports CCoFôs contention that full information at the ES stage has to be provided by the applicant for planning permission:

"Adequacy of the Environmental Statement

125. Planning authorities should satisfy themselves in every case that submitted statements contain the information specified in Part II of Schedule 4 to the Regulations (see Annex B) and include all the relevant information set out in Part I of that Schedule that the applicant can reasonably be required to compile. To avoid delays in determining EIA applications, consideration of the need for further information and any necessary request for such information should take place as early as possible in the scrutiny of the application.

126. It is important to ensure that all the information needed to enable the likely significant environmental effects to be properly assessed is gathered as part of the EIA process. If tests or surveys are needed to establish whether there are likely to be significant effects, the results of these should be taken into account in deciding whether planning permission should be granted. If the full environmental information as defined in Regulation 2(1) is not taken into account due to the inadequacy of the Environmental Statement, any planning permission granted runs the risk of being quashed.ò

15. PAN 51 at § 44 provides:

ñ44. é Regardless of how respective applications are considered, what is essential, is that adequate information is provided so that all the relevant regulators are consulted and can make informed recommendations at the planning application stage.ò

Note there has to be sufficient information at the planning application stage for the regulators to make informed recommendations ï it was clear from SEPAôs comments at the Hearing Session 2 that they were awaiting the outcome of the planning stage to be sufficiently informed so that they could then come to an informed view ï this was particularly so in relation to chemical substances to be regulated under the Water Environment (Controlled Activities) (Scotland) Regulations 2011 (ñCARò) and the extent to which the process would be

[2] http://www.scotland.gov.uk/Publications/2011/06/01084419/0

covered by the Pollution Prevention and Control (Scotland) Regulations 2012 (ñPPC ò).

Importance of public participation in EU law

16. The importance of public participation in environmental decision making is clearly recognised by the EU. This is recognised in Preamble and Article 6 of the Directive 2011/92/EU (the EIA Directive) as enacted in The Town and Country Planning (Environmental Impact Assessment) (Scotland) Regulations 2011 (EIA Regulations)[3]:

Preamble:

(16) Effective public participation in the taking of decisions enables the public to express, and the decision-maker to take account of, opinions and concerns which may be relevant to those decisions, thereby increasing the accountability and transparency of the decision-making process and contributing to public awareness of environmental issues and support for the decisions taken.

(17) Participation, including participation by associations, organisations and groups, in particular non-governmental organisations promoting environmental protection, should accordingly be fostered, including, inter alia, by promoting environmental education of the public.

Article 6.4

4. The public concerned shall be given early and effective opportunities to participate in the environmental decision-making procedures referred to in Article 2(2) and shall, for that purpose, be entitled to express comments and opinions when all options are open to the competent authority or authorities before the decision on the request for development consent is taken.

NB: ñeffective public participationò; right to ñexpress é opinions and concernsò; ñeffective opportunities to participateò.

17. The CJEU, in construing the EIA Directive makes clear that this is to give the public a ñwide access to justiceò and that the public should play ñan active roleò. Throughout the Opinion of the Advocate General and the Court, there is detailed reference to the Aarhus Convention as a means to interpreting the obligations in the EIA Directive.

C-260/11 *R (on app Edwards) v Environment Agency*

Advocate General:

[3] Reference is made to the EIA Directive, rather than to the EIA Regulations as the purpose behind the legislation is easier to discern from the Directive.

ñ41. The Convention has this two-fold interest in view. Under Article 1, each party must guarantee the right of access to justice in environmental matters in order to contribute to the protection of the right of *every person* of present and future generations to live in an environment adequate to his health and well-being. The seventh and eighth recitals in the preamble to the Convention confirm that aim and supplement it with the *duty* of every person to protect and improve the environment for the benefit of present and future generations. Consequently, according to its 18th recital, the Convention seeks to make effective judicial mechanisms accessible to the public, including organisations, so that its legitimate interests are protected and *the law is enforced*.

42. Recognition of the public interest in environmental protection is especially important since there may be many cases where the legally protected interests of particular individuals are not affected or are affected only peripherally. However, the environment cannot defend itself before a court, but needs to be represented, for example by active citizens or non-governmental organisations.

CJEU ï
31. As is expressly stated in the third paragraph of Article 10a of Directive 85/337 and the third paragraph of Article 15a of Directive 96/61, the objective of the European Union legislature is to give the public concerned ówide access to justiceô.

32. That objective pertains, more broadly, to the desire of the European Union legislature to preserve, protect and improve the quality of the environment and to ensure that, to that end, the public plays an active role.ò
[underline added]

Inability for public to participate in absence of material information

18. Failure to produce

- information about chemicals used in gas production, gas treatment and produced water treatment processes
- information about chemicals produced as by-products of gas production
- the so called ñconfidentialò geological and chemical information, which was not made available to the inquiry or the public
- the documentation and information provided to Dartôs witness, which was not made available to the inquiry or the public;
- baseline surveys
- full field development plans

all mean that neither the Reporters nor the public, including CCoF, could have ñeffective participationò or ñeffective opportunities to participateò, or could play ñan active roleò in assessing the environmental information.

19. Accordingly the failure to provide this information is in breach of the obligations in the EIA Directive and accordingly the appeal should be refused.

EIA Information and Regulators

20. It is accepted that the issue of permits by environmental and other regulators follows upon the granting of planning permission ï see flow chart at page 11 of SEPA Regulatory Guidance: Coal Bed Methane and Shale Gas [DE(M)3], but that does not mean that information can be held back from the ES stage and only provided to regulators after planning permission has been granted particularly if that information is already available to and being used by the applicant. This is clear from:

    a. Article 5(3)(c) of the EIA Directive which refers to ñ(c) the data required to identify and assess the main effects which the project is likely to have on the environmentò. This makes clear that all the data has to be provided at the ES stage that is likely to have an effect on the environment, while measures to reduce that effect are referred to at 5(3)(b) ï ie which could include the effects of regulation.

    b. Article 6(1) then provides that the regulatory authorities are to given that information so that they can comment on the application and the same information has to be available to the public ï Article 6(3)(a). Thus it is clear that information cannot be kept back from the ES stage and given to the regulators at a later stage after consent for the project has been given.

    c. Holding back information to the regulatory stage prevents the public from having effective participation in the decision making process ï see above.

    d. It is a well-established principle of EU law that environmental assessment should be undertaken at the earliest possible stage and in particular at the ñprincipal decisionò stage ï the planning application stage is the principal decision stage and is followed by the regulation decision stages. Therefore is it clear that all the environmental information should have been included in the ES and available to the inquiry. ï

        C-201/02 *R (on app Wells) v Secretary of State for Transport, Local Government and the Regions* [2004] ECR I - 748

> ñ51. According to the first recital in the preamble[4] to the directive, the competent authority is to take account of the environmental effects of the project in question at the earliest possible stage in the decision-making process.
>
> 52. Accordingly, where national law provides that the consent procedure is to be carried out in several stages, one involving a principal decision and the other involving an implementing decision which cannot extend beyond the parameters set by the principal decision, the effects which the project may have on the environment must be identified and assessed at the time of the procedure relating to the principal decision. It is only if those effects are not identifiable until the time of the procedure relating to the implementing decision that the assessment should be carried out in the course of that procedure.ò
>
> NB: While the *Wells* case is in the context of the registration of an old mineral consent followed by an application for determination of new planning conditions, it is submitted that the principles apply to the current circumstances where regulatory decision follow upon the planning appeal decision, which is the ñprincipal decisionò.

21. Accordingly it was unlawful for Dart to withhold information from the ES on the basis that it would be made available to regulators at a later stage.

Failure to assess potential health impacts

22. It is submitted that the ES is required to assess potential health impacts. Schedule 4 of the EIA Regulations requires ñ3. A description of the aspects of the environment likely to be significantly affected by the development, including, in particular, population é ò. Part of the way in which the population may be significantly affected is by a health impact arising from the emission of pollutants, effects on water and a consideration of ñ4 é the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects é ò. The long term effects of carcinogens and endocrine disrupters from pollutants are of particular importance in relation to the health of human and fauna populations.

23. It is clear from the evidence of Dr Buroni that no proper health assessment was carried out for the ES ï see Precognition § 1.6. Professor Wattersonôs evidence makes clear as to why a health impact assessment was required. While the

[4] Now preamble 2 -

(2) Pursuant to Article 191 of the Treaty on the Functioning of the European Union, Union policy on the environment is based on the precautionary principle and on the principles that preventive action should be taken, that environmental damage should, as a priority, be rectified at source and that the polluter should pay. Effects on the environment should be taken into account at the earliest possible stage in all the technical planning and decision-making processes.

Public Health England ñReview of Potential Health Impacts é ò [DE(N)2] might have related to shale gas extraction, it is submitted that the same principles should apply to CBM production and PHE at Section 9 ñRole of Health Impact Assessmentsò does recommend that there should be an evaluation of health issues prior to operation and does recommend a health impact assessment (HIA). This supportôs CCoFôs position that there ought to have been a HIA.

24. Potential health impacts are considered separately below. However, the failure to have a proper HIA in the ES means that the ES is defective. In so far as Dr Buroniôs precognition might be said to be an HIA, part from disagreeing with its conclusions for the reasons given by Professor Watterson in his Precognition and Rebuttal, it was not made available to the public as it ought to have been if it had been included within the ES.

Failure to assess the "cultural heritage" of the community

25. It is submitted that the EIA Regulations fail to transpose the EIA Directive correctly in so far as it refers to ñcultural heritageò. The EIA Directive Article 3(c) refers to ñmaterial assets and the cultural heritageò and this has been transcribed in the EIA Regulations in Schedule 4 as ñ3. é material assets, including the architectural and archaeological heritage é ò.

26. It is submitted that ñcultural heritageò is more than ñthe architectural and archaeological heritageò.

a. The TFEU provides

Article 3.3. *"*... The Union shall respect its rich cultural and linguistic diversity, and shall ensure that Europeôs cultural heritage is safeguarded and enhancedò.

b. The Council of Europe Framework Convention on the Value of Cultural Heritage for Society [2005] stated that:

ñCultural heritageò means a group of resources inherited from the past which people identify, independently of ownership, as a reflection and expression of their constantly evolving values, beliefs, knowledge and traditions, including all aspects of the environment resulting from the interaction between people and places through timeò

c. Whereas paragraph 3 of Annex IV to the EIA Directive (in referring to the information required to be provided in an environmental impact assessment pursuant to Article 5(1)) states:

ñA description of the aspects of the environment likely to be significantly affected by the proposed project, including, in particular, population, fauna, flora, soil, water, air, climatic factors, material assets, including the architectural and archaeological heritage, landscape and the interrelationship between the above factors.ò;

paragraph 4 of Annex IV to the draft EIA Directive (text adopted as at 12 March 2014)[5] having a similar function to paragraph 3 of the EIA Directive states:

ñ4. A description of the **factors specified in Article 3(1**) likely to be significantly affected by the project: population, human health, biodiversity **(for example fauna and flora)**, land (for example land take), soil (**for example** organic matter, erosion, compaction, sealing), water (**for example hydromorphological changes**, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological **aspects, and** landscapeò

(therefore differentiating between material assets and cultural heritage and, in relation to cultural heritage, stating that it includes but is not limited to architectural and archaeological heritage (text in bold and italics as on the original text)).

d. Wikipedia accurately sums up the meaning of ñcultural heritageò[6]:

Cultural heritage is the legacy of physical artifacts and intangible attributes of a group or society that are inherited from past generations, maintained in the present and bestowed for the benefit of future generations. Cultural heritage includes tangible culture (such as buildings, monuments, landscapes, books, works of art, and artifacts), intangible culture (such as folklore, traditions, language, and knowledge), and natural heritage (including culturally significant landscapes, and biodiversity).

[5] http://www.europarl.europa.eu/sides/getDoc.do?type=TA&reference=P7-TA-2014-0225&language=EN#BKMD-30

[6] http://en.wikipedia.org/wiki/Cultural_heritage

27. CCoFôs concept of the cultural heritage applicable to the community affected by the proposed development is set out in the Community Charter [CCoF 3]. This was not assessed in the ES and therefore the ES is defective. The ñintangible cultureò is measurable as set out by Dr T Crompton in his Precognition and during his examination in chief he referred to the Schwartz Values Survey which is used as the basis of the European Social Survey run across EU Member States every 2 years[7] ï note that he was not challenged on this point by any cross-examination.

Failure to carryout signal testing and base line monitoring

28. It is submitted that from the evidence it is clear that Dart ought to have carried out signal testing and base line monitoring. Dr Salmon of AMEC spoke to the fact that signal testing should have been carried out and would have answered some of the environmental uncertainties. During the course of the Inquiry and Hearing Sessions Dart accepted that they would accept conditions requiring monitoring to establish base lines. The Proposed Revised Conditions [DE(V)3b] includes suggested conditions at 12 for a ñWater and Gas Monitoring Planò and in respect of Air Quality at § 43 there is a requirement to ñidentify the range of air pollutants that are propose to be monitoredò; ie at this stage the Reporters do not know what is to be monitored and so cannot assess what the environmental impact might be.

29. As Dr Salmon suggested signal testing [and see AMEC Note 7 October 2013 § 2.2.2] and as it is accepted that some base line monitoring is required, it is submitted that it is not lawful to allow the appeal where these uncertainties can only be resolved after planning permission is granted.

R v Cornwall CC ex p Hardy [2001] Env LR 25 at §s 62 and 63.

where held that if surveys are required that planning permission should not be granted until the surveys had actually been undertaken, because a planning authority could not know whether or not there would be significant adverse effects until the surveys had been received.

Lack of confidence in the ES

30. The Reporters should be concerned as to the thoroughness of the ES and therefore should be cautious in having confidence in the conclusions in the ES.

a. The original ES contained minimal consideration of subsurface risks, which was an obvious issue for the development;

[7] http://www.europeansocialsurvey.org/data/themes.html?t=values

b. It is of note that the original G20 was so deficient that after concerns had been raise by AMEC and Professor Smyth, the G20 has to be re-written. Neither AMEC nor Professor Smyth considered that the re-write had in fact addressed the issues as to the geology and the hydrology of the application area.

c. Neither the ES nor the G20 included any assessment of radioactive NORMS in produced or treated water or waste treatment;

d. The Transport Assessment is significantly defective as outlined in CCoFôs Supplementary Hearing Statement. The author had not ascertained that a National Cycle Route traversed part of the area; that the local cycling club used part of the routes for their trials and the number of HGVs had not been assessed in terms of in terms of the Guidelines for the Environmental Assessment of Road Traffic [DE(R)10]. This was effectively admitted by David Archibald, Dartôs transport witness at Hearing Session.

Conclusion

31. In light of all the deficiencies in the ES set out above, the appeal should be refused.

EIA, PLANNING, REGULATION AND PAN 51 [DE(M)25]

CCoF's position

32. CCoFôs position is:

a. The inter-relationship between the planning regime and the regulation regime was considered in *Gateshead Metropolitan Borough Council* v *Secretary of State for the Environment* (1994) Env LR 11 and *R v Bolton Metropolitan Borough Council, exp Kirkman* [1998] JPL 787 [5 May 1998]. However, those cases were decided before the Aarhus Convention was agreed on 25 June 1998 and the EIA Directive was amended on 26 May 2003 [Directive 2003/35/EC] to take account of the Aarhus Convention. Therefore those decision and Pan 51 have to be modified to take account of that amendment. Therefore, as set out above, that all information should be provided at the ES stage, in order that a determination can be made as to whether or not there will be significant effects on the environment.

b. PAN 51 [DE(M)25] even though revised in 2006 does not consider the relationship between what information is required in the ES and what

information may be provided to the regulators at a later time. It only considers the respective roles of the planning authority and the regulators in the context of the availability of an ES that complies with the legal requirements.

Interrelationship EIA and Regulation

33. *Gateshead Metropolitan Borough Council* v *Secretary of State for the Environment* (1994) Env LR 11

ñHaving summarised the submissions, I now set out my conclusions. In my view, the appropriate starting point is the Secretary of State's obligation to have regard to the development plan and other material considerations (s.70(2) of the Town and Country Planning Act 1990). It is clear beyond any doubt that the environmental impact of emissions to atmosphere is a material consideration at the planning stage. In support of that proposition, one need look no further than the Town and Country Planning (Assessment of Environmental Effects) Regulations 1988. It follows, in my judgment, that the Secretary of State could not lawfully adopt a policy of hiving off all consideration of such environmental effects in their entirety to the EPA régime. But, just as the environmental impact of such emissions is a material planning consideration, so also is the existence of a stringent régime under the EPA for preventing or mitigating that impact and for rendering any emissions harmless. It is too simplistic to say ñthe Secretary of State cannot leave the question of pollution to the EPA.ò

It is acceptable by the applicants that there may come a point in the planning appeal process when the Secretary of State is entitled to be satisfied that, having regard to the existence of EPA controls, a residual difficulty or uncertainty is capable of being overcome, so that there is no reason to refuse planning permission. Whether that point has been reached is a question for the judgment of the decision taker on the facts of each individual case.

Where two statutory controls overlap, it is not helpful, in my view, to try to define where one control ends and another begins in terms of some abstract principle. If one does so, there is a very real danger that one loses sight of the obligation to consider each case on its individual merits. At one extreme there will be cases where the evidence at the planning stage demonstrates that potential pollution problems have been substantially overcome, so that any reasonable person will accept that the remaining details can sensibly be left to the EPA authorisation process.

At the other extreme, there may be cases where the evidence of environmental problems is so damning at the planning stage that any reasonable person would refuse planning permission, saying, in effect, there is no point in trying to resolve these very grave problems through the EPA process. Between those two extremes there will be a whole spectrum of cases disclosing pollution problems of different types and differing degree of complexity and gravity.

Reasonable people might well differ as to whether the proper course in a particular case would be to refuse planning permission, or whether it would be to grant planning permission on the basis that one could be satisfied that the problems could and would be resolved by the EPA process. But that decision is for the Secretary of State to take as a matter of planning judgment, subject, of course, to challenge on normal *Wednesbury* principles.ò

34. The points to Note from this passage, upon which PAN 51 appears to be based is that:

- emissions etc are a material consideration at the planning stage
- the existence of the regulatory regime is also a material consideration
- there may come a point in the planning appeal process when the Reporters are entitled to be satisfied that, having regard to the existence of regulatory controls, a residual difficulty or uncertainty is capable of being overcome ï that suggests that the Reporters required sufficient information about the process, the emissions and the produced water etc so that any ñresidual difficultyò can be left to the Regulators.

35. The submission for CCoF is that there is not enough information in the present appeal for the Reporters to be in a position to feel able to leave ñresidual difficultiesò to the regulators ï there are still fundamental difficulties that cannot be resolved in the stage of the current information before the inquiry.

Concerns about ability of regulators to regulate

36. CCoF submits that the Reporters should not accept at face value and as suggested in PAN 51 that:

ñ53 é In the exercise of their own responsibilities, planning authorities can assume that environmental pollution bodies will exercise their responsibilities effectively.ò

PAN 51 is only ñadviceò and therefore the Reporters should consider whether it is appropriate to apply that advice in the circumstances of this appeal. CCoF submit that they should not apply the advice for the following reasons.

a. CBM production is a novel process, particularly in Scotland. This is recognised in SEPA letter of 24 January 2014 at § 2.4 [CCoF 262] and by Dartôs counsel, who described it as ñnewò and ñcutting-edgeò during the examination of Mr Allan Pollock in Inquiry Session 4.

b. The Reporters should accept the evidence of Dr Lloyd-Smith in the Precognition, Rebuttal and oral evidence that in the realm of CBM

production, which is a new technique, regulators, while they undoubtedly do their best, are finding it difficult to actually regulate the industry effectively. The evidence of what is happening in Australia and USA confirms this.

c. Further Professor Smythe also gave evidence that UK regulators of the hydrocarbon industry have problems mainly due to staffing levels and competence in the industry.

d. The plethora of regulators, DECC, HSE, SEPA, Marine Scotland, Local Authorities etc makes it difficult for the regulators to be clear as to who is regulating what part of the activity and there is a risk of confusion between roles;

e. Concerns that SEPA are still deciding how to regulate the development ï see SEPA letter of 24 January 2014 [CCoF 262] ï

ñAs the Reporters will appreciate, this is a novel process, and one on which SEPA is still working to develop its regulatory position. The scope of the 2012 Regulations to regulate the various aspects of process is not yet completely clear. As such, we would like to clarify that although it is our intention to regulate the central gas processing and water treatment facility and the fugitive methane emissions in the manner stated above, having reviewed our position, we are unable to state definitively at this point that we will regulate the fugitive methane emissions from the well heads. We are currently working to clarify the most appropriate means of regulating under the 2012 Regulations.ò

Further, SEPA made clear at the Hearing Session that they were waiting for guidance from the Scottish Ministers as to how PPC was to apply to the proposal; there is lack of clarity as to whether SEPA or the Councilô regulate air quality [CCoF 211, 215 & 216] and it seems clear that no one regulates fugitive emissions unless they impact on water quality or are clearly covered by PPC in which case it is SEPA.

a. There appears to be a lack of knowledge by the planners or regulators about trajectories of existing horizontal boreholes or laterals. It is far from clear that Dart has all this information. At the Inquiry Dart said it would be onerous to provide that information ï if they had it available it would not have been onerous to produce it and this suggests that they might not have all the information. Further the length of time taken to reach agreement on the history of previous planning applications does not give rise to confidence that Dart have full details of what has gone on before. Certainly Falkirk Council does not have full details of what has been implemented in terms of existing planning permissions. There

was still a lack of clarity between Falkirk Council and Mr Pollock of RPS, on the day before the site visit, as to whether there are 1 or 2 vertical wells at Airth 4 & 11, and if there are 2, whether the later one has planning permission.

b. The Reporters should also have regard to the submissions made in CCoFôs Hearing Statement at 4.5 ñThe Joint Statement of Common Understandingò regarding the regulatory problems.

c. In so far as Dart suggest that there has been CBM production in the area without problem for past years and that can give the Reporters confidence, it is suggested that such confidence would be misplaced.

i. The Reporters should have regard to the points made in the Hearing Statement at § 4.6 ñPast Regulation of CBM developments in the PEDL Areaò.

ii. It would appear that SEPA has little information on passed produced water - CCoF 213; SEPA holds no information on chemicals used in drilling fluids in the past or what chemicals have been left in the ground ï CCoF 215; there were no reporting requirements on Dart or its predecessors in relation to water testing and SEPA had no knowledge of where sludge was taken to offsite ï CCoF 216; SEPA had made no unannounced visits since CAR licence issued and testing was for Dart ï CCoF 218;

iii. The Kennet borehole incident is of particular relevance which was not reported to SEPA and was only followed up by SEPA on a noise complaint from a neighbour ï CCoF 220 & 221. Further Mr Dick spoke of the operators at Airth 1/7/10 coming at night and releasing fluid from tankers onto the ground and the ground now being very salty and damaging for agriculture ï in so far as it was suggested in cross examination of Dr Lloyd-Smith that it was only ñsaltò this demonstrates that salt in the produced water can be damaging to the environment.

37. For all these reasons the Reporters should accept that there is a risk that any regulatory regime and this risk should be taken into account as a material factor in the overall risk assessment in relation to adverse effects on the environment.

APPROPRIATE ASSESSMENT (AA) & FIRTH OF FORTH SPA DISCHARGE INTO THE FORTH

CCoF's position

38. CCoFôs position in relation to the discharge into the Firth of Forth and its potential effects on the SPA is that:

- SNH in the scoping opinion letter [DE23] suggested that an AA was required;
- Falkirk Council in the scoping opinion letter suggested the EIA should assess any potential impacts on biodiversity resulting from the outflow of water into the Firth of Forth, and propose suitable mitigation as necessary.
- there is no clear evidence that any of the potential competent authorities has properly considered the potential impacts of the discharge on the SPA or carried out an AA:
- such material as there is, suggests that SEPA considers that they will have to consider whether or not an AA is required once they have the results of the second assessment to be carried out by Dr Marsh and once they have information about the chemicals that might be in the discharge;
- Dr Fairlie in his agreement with Dr Saleh ñDr Fairlie remained concerned about proposed annual discharges to the Forth, but accepted that these were likely to be in large water volumes, if permissions were granted.ò
- therefore planning permission cannot be granted because at this stage the Reporters cannot be satisfied that there will be no significant adverse effect on the integrity of the SPA.

Law relating to requirement for AA

39. Regulation 48 of The Conservation (Natural Habitats, &c.) Regulations 1994 [DE(T)1] provides:

> 48.ð **Assessment of implications for European site**
> (1) A competent authority, before deciding to undertake, or give any consent, permission or other authorisation for, a plan or project whichï
>
> (a) is likely to have a significant effect on a European site in Great Britain é (either alone or in combination with other plans or projects), and
>
> (b) is not directly connected with or necessary to the management of the site,
>
> shall make an appropriate assessment of the implications for the site in view of that site's conservation objectives.
> (2) é .
> (3) é .
> (4) é .

(5) In the light of the conclusions of the assessment, and subject to regulation 49, the authority shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the European Siteé .
(6) In considering whether a plan or project will adversely affect the integrity of the site, the authority shall have regard to the manner in which it is proposed to be carried out or to any conditions or restrictions subject to which they propose that the consent, permission or other authorisation should be given.

NB: It should be noted that whether or not there is likely to be a significant effect of the SPA has to be considered before the manner in which the proposal is to be consented is to be taken into account. Those factors are taken into account in the AA in deciding whether the plan will not adversely affect the SPA.

Reasons an AA required

40. CCoF submits that it is clear from the documentation that, following SNHôs statement that an AA is required, that no one has properly considered whether or not the proposal to discharge treated produced water will have a significant effect on the integrity of the SPA and therefore whether or not an AA is required. Further it is submitted that on the information available to the Reporters, the Reporters are not able at this stage to determine whether or not an AA is required. CCoF refers to:

a. DE19 ï SNH Response at page 12. Note that at the scoping stage SNH understood that ñThe proposal is for an exploration and pilot test development for coal bed methane extraction.ò SNH does refer to the SPA and state that ñIn our view, this proposal is likely to have a significant effect on the qualifying interest of the site. As a consequence Falkirk Council is required to carry out an appropriate assessment é ò.

b. Further there is no consideration by SNH in the scoping letter of the contents of the discharge from the outfall, which suggests that SNH did not consider this issue, perhaps because they considered it an issue for SEPA ï see the approach in the SNHôs letter dated 25 April 2007 [lodged by CCoF at Hearing Session 2] where SNH refers to the fact ñWe do note however that the application does not include any details of what pollutants may be present in the water being discharged é ò and go on to say that once they are known SEPA will have to carry out an assessment under the Habitats Regulations. That is exactly the position in the present case, where the content of the discharge is not known at this stage.

c. The SEPA letter dated 24 October 2012 [CCoF 208] lists chemicals and substances in the current produced water. Additional BTEX chemicals are included in a further report available on the appellantôs website [CCoF 318]. At the hearing SEPA said that they wanted two results but had only been given one set as production has stopped. Professor Watterson gave evidence that those chemicals and substances included carcinogens and endocrine disrupters, which could have health impacts at very low levels ï he spoke of potentially far-reaching effects at parts per billion. See also CCoF 16 ôPotential Public Health Risks Associated with Application P/12/0521/FULô, by M. Parnell and J.M. Hamilton, 2013 at page 2 ñThe Myth of ñSafeò Levels of Exposureò, which makes clear that there is no safe dosage of many of these chemicals, that they can accumulate within living organisms and the food chain at concentrations several orders of magnitude greater than their concentrations within the environment and can have long term health effects on humans, animals and ecosystems as a whole.

d. It is of note that there were inconsistencies among appellantôs witnesses as to the salinity of the treated water describing it variously as ñbefore treatmenté one third as saline as sea waterò [Dr Cuffôs Rebuttal Para 33] and of ñhigher salinityé than ambient receiving saline watersò [Dr Marsh Precognition page 7].

e. SEPA are clearly concerned about potential impacts as the have instructed Dr Marsh (ETS Worldwide Ltd) to carry out (i) an initial assessment, which has been carried out and a second more detailed assessment to evaluate the ñnegatively buoyant effluent plumeò resulting from the higher salinity water, and to measure ñactual dilution and dispersion, the deposition and fate of particulate matter é ò ï Precognition pages & and 8. Dr Marsh makes clear that this was because of SEPAôs concerns about the atypical plume and the accumulation of particulate matter in relation to the SPA

ñSEPA indicated that a comprehensive field monitoring programme would provide the necessary information to characterise the overall site in general terms, but not the negatively buoyant effluent plume. Existing models approved by SEPA were primarily developed for a buoyant effluent plume. Therefore, SEPA confirmed that depending on the discharge parameters for the effluent plume from Dart Energyôs operations, there would be uncertainty in these predictions using existing approved models and additional calibration and validation data and more sophisticated modelling (possibly including numerical modelling) would be required to characterise a negatively buoyant plume

ñSEPA also identified that the presence of particulate (precipitate) in the effluent would need to be examined to assess the deposition and fate of any material not widely dispersed, especially in the adjacent

environmentally sensitive sites (i.e. SSSI, SPA and Ramsar sites). SEPA have a statutory obligation not to grant a licence for any discharge that is shown to have an adverse effect on designated environmentally sensitive areas such as SPA, SSSI etc. Particulate and/or any toxic substances present in the effluent must not accumulate on the seabed within the identified Mixing Zone in quantities that give rise to acute toxicity, due to the extended exposure for resident benthic organisms associated with any accumulation.ò

f. At the Hearing session on Regulation SEPA accepted that they had not yet been given information about the chemicals that were likely to be in the discharged water and that only when that information, together with Dr Marshôs second assessment, was available would they be in a position to assess whether or not there would be no adverse affect on the integrity of SPA.

g. Dr Fairlie in his agreement with Dr Saleh ñremained concerned about proposed annual discharges to the Forth, but accepted that these were likely to be in large water volumes, if permissions were granted.ò The effect of these discharges has not been assessed on their effect on the SPA.

41. In these circumstances it is submitted that the Reporters cannot be certain that the development ñwill not adversely affect the integrity of the European Siteò and accordingly the planning application should be refused.

a. It is submitted that the Reporters cannot rely on the SEPA letter dated 24 October 2012 [CCoF 208] which lists the chemicals and substances in the current produced water as suggested by Dart, because neither the Reporters nor SEPA know what might be in the future produced water. In any event no one has assessed the potential effects of the carcinogens and endocrine disrupters identified by Professor Watterston and Document CCoF 16 as being in the produced water [CCoF 208 and CCoF 318].

RISKS ARISING FROM UNDERGROUND WORKINGS [Fugitive Gas & Impact on Environment]

CCoF's position

42. CCoFôs position concurs with that of Falkirk and Stirling Council to the effect that the information about the underground situation is such that the Reporters cannot be certain that there will not be a significant adverse effect from the underground workings. Therefore the appeal should be refused.

Lack of knowledge of underground geology and hydrogeology

The Reporters should accept the evidence of Professor Smythe and Dr Salmon of AMEC re the uncertainties regarding the Geology and the Hydrogeology as set out in their precognitions, rebuttals and oral evidence. CCoF also refer to the AMEC Technical Note [SC 12] regarding the issues that AMEC considered still applied and their recommendation at 21 November 2013 § 3.4. Professor Smythe in his Comment on the paper ñOil and gas wells and their integrity é ò [produced by FoE] re-iterated his evidence and confirms that the paper ñé corroborates what I have said in my precognition about faults as potential pathways to the surface for contaminants and fugitive methane.ò

a. In so far as something might be made of both Professor Smythe and Dr Salmon have represented FoE at the Cumbria inquiry, it should be remembered that NGOs are given a special place in EU environmental law under Aarhus Convention.

b. In so far as it might be argued that Professor Smythe accepted that horizontal pressures closed fractures at the surface and it is only below 500 meters that the pressure is more vertical, that evidence has to be seen in the context of his whole evidence regarding faults as pathways for fugitive emissions;

c. Professor Smytheôs point (Precognition, 3.3.13 - 3.3.15) that some of the reported methane leaks in Pennsylvania may be due to a permeable overburden above the Marcellus Shale is important in relation to the assertion that even if the Airth overburden does not have fault pathways, that such overburden could in fact still provide a pathway for fugitive emissions. It matters not that there may be fracking in Pennsylvania, but the point is the overburden does not make a perfect seal ï see also the Professor in the Comment on the paper ñOil and gas wells and their integrity é ò at page 2 ñmy conclusion that the overburden, or cover rock sequence, above the Airth CBM target is an inadequate seal still stands.ò

d. Dr Salmonôs evidence regarding the possibility of the Dart workings de-watering any existing coal mines, and it is clear that full details of the coal mines are not known and some of the proposed laterals appear to go quite near to the extensive Bannockburn workings in the same seam as Dartôs operations, and if de-watered leading to gas emissions from those abandoned mines.

e. The risk of upward gas migration from the zone of influence via faults and boreholes due to the influence of pressure gradients other than that

at the well head, for example, as the result of the blockage of a lateral, a temporary or procedural halt in dewatering, or cessation of operations should be taken into account.

f. Risk of drilling across major faults, where the faults have a fracture area either side of the fault was spoken to by Professor Smyth. Mr Sloan accepted that drilling could be across a fault, and stated that this had already occurred twice over the course of the appellantôs past operations. He went on to explain that the coal seam would be searched for thus leaving any gas and water to go through an area of a fault zone, which was not the coal seam with risks of migration away from the lateral either upwards or into other zones.

g. Albeit in the Australian geological context, both CCoF 76 and 151 found evidence of elevated localised levels of radon, methane gas and CO_2, respectively, for which the most reasonable explanation was that they were fugitive emissions from nearby CBM operations. In CCoF 151 Southern Cross University said ñOur results demonstrate the need for **baseline studies before the development of gas fields**.ò

43. It is submitted that the evidence of

a. Dr Cuff ï this should be treated with caution. It is based on material not produced and should therefore be rejected for the reasons given under ñBest evidence ruleò. Further, in response to cross examination by Mr Collar he said that most of the work had been done by others in the office and so accepted that they were not here to be cross examined, whereas in cross examination the next day for CCoF he purported to claim he had done all the work himself. It is hardly credible that he reviewed all the documentation he lists himself in the time available ï thus he is unreliable. He has limited knowledge of the Airth area in contrast to Professor Smyth who has worked in the area. In any event he recognised that the impact of faults on ground water is not yet clear (5.1.4) and that there is uncertainty regarding understanding of fluid movement (5.2.4).

b. Mr Goold ï It is based on material not produced and should therefore be rejected for the reasons given under ñBest evidence rule. Further his evidence should be treated with caution as he was employed by Composite Energy Ltd prior to the sell out to Dart. He must have been involved with the due diligence in telling Dart what was available and so will have an imperative to support that position. He appears to rely to a great extent on the evidence of others.

c. Mr Graham ï He has very limited experience in this field having been involved in only one previous CBM development. Much of his Precognitions appears to rely on the evidence of others, rather than on his own professional expertise. It should therefore be treated with caution.

44. In respect that the underground geology and hydrogeology is not fully understood, as set out in the above evidence, there is a risk water and air may be polluted and therefore that there is a risk of significant harm to the environment and to human health. For the reasons given by Falkirk and Stirling Council, which are supported by CCoF, the appeal should be refused.

RISKS ARISING FROM SURFACE OPERATIONS [Wells, Well Sites, Pipelines, GDWTP etc]

CCoF's position

45. CCoFôs position is that there are risks to the environment from well or plant failure, operator errors or misconduct or accidents. The properties of chemicals used in the process or to be extracted from the ground and coal seams are unknown and therefore potentially hazardous. In so far as the content of former produced water is known [CCoF 208] and as analysed in CCoF 16, any produced water is likely to contain higher concentrations of the same carcinogens and endocrine disrupters, which have long term health implications.

The risks

46. CCoF submit that it is unrealistic to expect the operation of the development to run without any problems. The Kennett Borehole problem clearly illustrates this possibility and Mr Dickôs evidence of an employee emptying produced water onto the land at night is another example.

a. In Mr Sloanôs response to the paper ñOil and gas wells and their integrity é ò [FoES 50] he states:

> ñOnshore UK (and more relevant to Airth), as of the year 2000 only nine wells from 143 active well pads had recorded incidents of breach and subsequent pollution as detailed in Table 7. Of these nine events, five (5) were in pipelines and not wells, one (I) was due to a control system failure and one (1) was an accidental spill. So in essence only 2 events were attributable to well integrity failure of the 143 well pads identified. This is a failure rate of 1.4%. The cause of the failure is attributed to problems with cementing of the 9-5/8ô casing and with no

other information 1 cannot comment on why that would have occurred. This data would support a position that in fact wells and geology do not contribute greatly to air or groundwater pollution events by themselves, but the capture, storage and transfer of hydrocarbons at surface is more likely to be an issue if not managed correctly.ò

While this might only be a failure rate of 1.4% in relation to well failure, it amounts to about 7.15% incidents of pollution from wells, pipelines, control system failure and an accidental spill. In Figure 7 of the paper ñOil and gas wells and their integrity é ò it lists a number of places at which there was a failure. A 7% failure rate at Airth has potential to cause significant pollution.

b. Any well, pipeline or plant failure, accident with the daily lorry taking sludge or discharge into the Forth are potential pathways for pollutants to enter the water courses, the air or the environment

c. There is a risk of contaminants in produced gas released through venting and flaring. Although Dart tried to minimise the amount of venting or flaring there is no guarantee that this will be kept to the minimum suggested.

d. There is a risk of chemical run-off into local watercourses and habitats, by way of soakholes at each well pad [see the soakaways discussed at the hearing] and field drainage systems.

e. Risk of the contamination of groundwater and farmland by pressurised water from abandoned mine workings (eg Kennet Borehole) ï some of the laterals appear to go quite near to the old and extensive Bannockburn mine workings [DE35, G20 Appendix 5, Fig 4]

f. In carbon extraction there is always the potential for a major accident ï eg Piper Alpha or Deepwater Horizon (Mexican gulf).

POTENTIAL HEALTH IMPACTS

CCoF's position

47. CCoFôs position is that:

a. Dr Lloyd-Smith and Dr McCarronôs evidence, and the documentation referred to hereafter, albeit relating to different circumstances in

Australia and the USA, and therefore caution should be applied to the evidence, raises concerns that there might be health impacts arising from CBM production;

b. The evidence and conclusions of Professor Watterson should be accepted that there is a significant present load of pollutants including carcinogens and endocrine disruptors in the area and that any new CBM activity will add to that load and that assertions about good environmental and occupations health and safety of the processes and materials used in CBM and effective regulation needs to be tested against the evidence and that currently does not stand up to scrutiny.

c. The contents of the only sample of past produced water contains carcinogens and endocrine disrupters and therefore this also raises concerns about the potential for health impacts arising from CBM production;

d. that there are pathways for pollutants to get into the environment to affect health either from fugitive emissions or from failures of wells, infra-structure or working practices.

The Evidence

48. The Reporters should accept the evidence of Dr Lloyd-Smith, Dr McCarron and Prof Watterson as set out in their precognitions, rebuttals and oral evidence. While Dr McCarronôs óSymptomatology of a gas field: An independent health survey in the Tara rural residential estates and environsô G. McCarron, April 2013ò [CCoF 96] is very small scale and has accepted limitations, Professor Watterson confirmed in evidence that it was enough to cause concern and to suggest there was a case to answer. Equally the New South Wales Government ñCoal seam gas in the Tara region; Summary risk assessment é ò was based on such a small sample that it cannot be taken as confirming that there is no health risk [CCoF 110].

49. The Health Protection Agency for the Committee on the Medical Effects of Air Pollutantôs (2007) Report (DE(N)17] notes in the executive summary that:

ñIII We are left with little doubt that long-term exposure to air pollutants has an effect on mortality and thus decreases life expectancy.ò

50. There is a risk of air pollutants. In ñAn Exploratory Study of Air Quality near Natural Gas Operationsò [CCoF 77] the Abstract stated:

ñThis exploratory study was designed to assess air quality in a rural western Colorado area where residences and gas wells co-exist. Sampling was conducted before, during, and after drilling and hydraulic fracturing of a new natural gas well pad. Weekly air sampling for 1 year revealed that the number of non-methane hydrocarbons (NMHCs) and their concentrations were highest during the initial drilling phase and did not increase during hydraulic fracturing in this closed-loop system. Methylene chloride, a toxic solvent not reported in products used in drilling or hydraulic fracturing, was detected 73% of the time; several times in high concentrations. A literature search of the health effects of the NMHCs revealed that many had multiple health effects, including 30 that affect the endocrine system, which is susceptible to chemical impacts at very low concentrations, far less than government safety standards. Selected polycyclic aromatic hydrocarbons (PAHs) were at concentrations greater than those at which prenatally exposed children in urban studies had lower developmental and IQ scores. The human and environmental health impacts of the NMHCs, which are ozone precursors, should be examined further given that the natural gas industry is now operating in close proximity to human residences and public lands.ò [underline added]

NB: The concentrations were highest during the initial drilling, so that finding would apply to CBM production, as it would appear that fracking does not increase the concentrations of pollutants in the air. Note that a the literature search on health effects revealed health effects at levels that are far less than government safety standards, a point spoken to by Professor Watterson.

51. CCoF 316 ñLeukemia Risk Associated with Low-Level Benzene Exposureò which found that there was ñNo evidence was found of a threshold cumulative exposure below which there was no riskò and benzene is found in CBM extracts. Professor Watterson spoke to this issue in his evidence and on cross examination.

52. In Potential Public Health risks associated with Application P/12/0521/FUL by Dr Morag Parnell, Mb.ChB, and Jamie McKenzie Hamilton, MSc [CCoF 16] the authors outline the seriousness of the implications for Public Health arising from Dartôs CMB proposals particularly by reference to the chemicals in Dartôs treated produced water found in CCoF 208.

53. CCoF 119 ñImpacts of Gas Drilling on Human and Animal Healthò which documents cases in six US states which strongly implicate that exposure to gas drilling operations has serious health effects on humans, companion animals, livestock, horses, and wildlife. Although the study focused on shale gas, it included processes and waste products also associated with CBM extraction and concluded:

ñWithout complete studies, given the many apparent adverse impacts on human and animal health, a ban on shale gas drilling is essential for the protection of public healthò

54. The Reporters should therefore accept that there is the potential for significant health risks in the future and applying the precautionary principle, should refuse the appeal.

FUTURE DEVELOPMENTS - PRECEDENT

CCoF's position

55. CCoFôs position is that:

a. the ñthin end of the wedgeò or the setting of a precedent is a material consideration.

b. that the Reporters can have regard to the fact that it is clear that Dart intend to apply for permission for the further development of wells in the area if this planning permission is granted and that if this permission is granted it will be difficult to refuse further applications.

c. The Reporters are entitled to have regard to all the evidence about the impact of this development on the area to take a broad brush view of the potential impact if further development is permitted to decide whether it is appropriate to grant permission for this development as a seed corn or precedent for further applications

Precedent as a material consideration

56. In *Collins Radio Ltd v Secretary of State for the Environment* (1975) 29 P & CR 390 the court held:

ñ(2) That it was an elementary principle of planning practice to ask, when considering a single planning application what side effects would flow if permission were granted; that it had been proper in law to consider the prospect of proliferation of similar planning applications if the permission sought were granted to the appellantsò

Lord Widgery CJ said at page 395:

So, in the end the inspector's concern on this point was lest the grant of planning permission in respect of this piece of industrially zoned land might open up the way, as it were, for similar applications in respect of other parcels of industrial land, which applications might be difficult to refuse if this instant application were granted.

This is a problem which has appeared in the administration of the planning law since its inception. There is no doubt whatever that, human nature being what it is, if permission is granted for a particular form of development on site A it is very difficult to refuse similar development on site B if the circumstances are the same. It must happen constantly, in practice that a local planning authority refuses planning permission in respect of site A because of the consequences which it fears might flow in respect of sites B, C and D. No court has so far said that that is not a proper consideration to be adopted by a planning authority, and Mr. Glidewell acknowledges, as one would expect, that he is putting forward a proposition which so far, at any rate, is not to be found in the books.

é

é In all planning cases it must be of the greatest importance when considering a single planning application to ask oneself what the consequences in the locality will beð what are the side effects which will flow if such a permission is granted. In so far as an application for planning permission on site A is judged according to the consequence on sites B, C and D, in my judgment no error of law is disclosed but only what is perhaps the most elementary principle of planning practice is being observed.

The thin end of the wedge or precedent

57. It is clear from GDWTP which has three times the capacity required for this development and Douglas Bainôs precognition regarding future intentions, the projections for investor presentations (CCoF 26), and the appellantôs contractual agreements with SSE (CCoF 23), that the intention is to use this application as a precedent for ambitious growth of the gas field.

- Mr Bainôs evidence made clear that if the planning permission is granted there will be 20 employees engaged by Dart Energy (Europe) Ltd to take forward a planning application a year for the expansion of the development.

  CCoF 23 records a deal by Dart to sell 38 Bcf of gas each year to SSE from 2013. Per Mr Bainôs evidence each well produces about 1 to 1.5 Bcf so to sell 38 Bcfs per annum requires between 25 and 38 production wells.

- CCoF 26 is Dartôs own projection of reserves at PEDL 133 and shows up to 1,247 Bcf with 597 or 151 Bcfs at the lower end of ñNet Contingent Reservesò. Mr Bain tried to explain this away a something put to the investors, but one must assume this is a true assessment, in which case there is the potential for 151, 597 or 1247 wells.

- CCoF 257 ï Minutes of meeting by Larbert, Stenhousemuir & Torwood Community Council with Dart where Dart suggested there might be one well per 1 Km^2 ï PEDL 133 covers 329 km^2 so there could be 329 wells on that basis.

58. Piecemeal development and customarily shifting patterns of ownership, ñfarm-outsò and partnerships, present major difficulties for local authorities and regulators to keep a handle on the full field development and potentially significant cumulative impacts. The issue was highlighted by SEPAôs ability to give only an ñapproximateò number when the information was requested of them [CCoF 214], and also by the length of time it took the appellant during the Inquiry to provide clear information about their operations to date.

59. In these circumstances the Reporters should have regard to the future plans and having regard to the broad affect that will have on the community and area and refuse the planning appeal because it is clearly the seed corn or precedent for further planning applications CBM development in the area and once this appeal is granted it will be difficult to refuse further applications, particularly as the main infra-structure being the GDWTP will be in place.

IMPACT ON THE COMMUNITY

CCoF's position

60. CCoFôs position is that:

a. the impact on the community and the communityôs cultural heritage is a material factor that should be taken into account, and in the circumstances of this appeal is sufficient to warrant refusal of the appeal.

b. Community concerns, even if not fully justified, and it is not accepted that they are not justified, is a material consideration because the community bears the burden of any risk from the applications;

c. The impacts on the community are such that the appeal should be refused.

Impact on the community and community's cultural heritage

61. The communityôs cultural heritage is set out in the Community Charter [CCoF 3] and in the evidence given for the Community by:

- Eric Applbe, Larbert Stenhousemuir and Torwood Community Council
- Alison Doyle
- Leslie Dick
- Councillor Steven Carleschi
- Councillor David Alexander

- Dr Tom Crompton

62. The evidence disclosed *inter alia* that while the Falkirk area had been an industrial area but had begun a transformation from the post-industrial time to regenerate the district. The ñMy Futureôs in Falkirkò (MIFF) is intended to transform the Falkirk district into a clean, green pleasant place to live and work ï see in particular Precognition of Councillor David Alexander §s 6-14 and ñThe Outcomeò. The proposed development is a re-industrialisation of the landscape and this outcome was objected to by Stirling Council per the evidence given at the Inquiry by their Councillor.

63. Impact on the community is set out as a material factor to be considered in (i) SPP § 237, (ii) draft SPP § 172, (iii) FSP ENV8 ñrisk to amenity of communityò, (iv) FCLP Policy EQ32 ñadverse impact on the amenity of the communityò, (v) emerging Falkirk Development Plan Policy RW 03 and RW03 ~òno significant adverse impact on the é local communityò.

64. Dr Crompton sets out in his precognitions, which was not challenged in cross-examination and therefore should be accepted, that the values of a community are quantifiable and that an adverse impact on those community values can erode a communityôs sense of autonomy and self-direction He referred to potential impacts on mental and physical well-being, and intrinsic values (Dr Crompton), and consequent effects on local sustainability and community integrity. This is supported in the ñCoal seam gas in the Tara region; Summary risk assessment é ò [CCoF 110] where reference is made to ñsolastalgiaò:

> ñé , the DDPHU report identified the issue of solastalgia. This term describes the distress that is produced in people by environmental change in their home environment. Negative effects can be exacerbated by a sense of lack of control over the unfolding change process in a personôs normal environment (Albrecht, Sartore, Connor et al, 2007).ò

Community concerns a material factor

65. Community concerns, even if not fully justified, and it is not accepted that they are not justified, is a material consideration. It is clear that the community has concerns about the impact of the environment and the potential for health impacts. These concerns are supported by the evidence of *inter alia* (i) Dr Lloyd-Smith, (ii) Dr McCarron, (iii) Professor Smyth, (iv) Professor Watterson and also by the approach of Dart in refusing to provide details of the chemicals that might be used in drilling and that might appear in the produced water.

R (on app Al Fayed) v Tandridge District Council (2000) 79 P & CR 227 [(2000) 80 P & CR 90 on appeal, but on a different point]:

Carnwath J said of the decision in *Newport MBC v The Secretary of State for Wales* (1988) JPL 377 referred to in *Al Fayed* that

p. 233 - ñThe case shows that, as a matter of law, an authority may take account of genuine concerns about public safety, even when they are not wholly supported by technical evidence. However, that conclusion must be read in its context. The ratio of that decision, as I understand it, is apparent from the end of the judgment of Hutchison L.J. at page 384. He said this:

> ñI accept Mr Howell's submission that the only sensible construction of the material words is that the inspector, and therefore the Secretary of State who adopted his reasoning, was approaching the question whether the council had behaved unreasonably on the basis that the genuine fears on the part of the public, unless objectively justified, could never amount to a valid ground for refusal. That was in my judgment a material error of law.ò

Thus the inspector erred in that case in treating the fears of the public as being of no relevance at all to the planning decision, as a matter of law. That does not mean that it would necessarily be reasonable for an authority to refuse a permission on the basis of unsubstantiated fears é ò.

66. While Dart tried to portray the development as risk free and that the circumstances in Australia and the USA were very different and there was no evidence that the present wells near Falkirk has caused any problems, there is no track record in the UK of CBM production. Even if the Reporters were to hold that there was no present evidence of substantial risk, and that is not accepted, the community still have to live with the fear that in time the risks that have arisen in Australia and USA may materialise with this development, particular, as Mr Bain said, the intention is to develop further wells if this permission is granted. That is a material consideration, as it cannot be said with certainty that such risks will not materialise, particularly where the Scottish Government convened an Independent Expert Scientific Panel on Unconventional Oil and Gas, which has not yet reported. Dr Crompton gave evidence of the impact that such a ñfearò can have on the community and it members.

Suggestion that community concerns arose from fear mongering

67. In the cross examination of various witnesses Dart tried to suggest that the communities concerns were invoked by Dr Lloyd-Smithôs talk given in Falkirk, but it is submitted that the evidence showed that the Community concerns had arisen before Dr Lloyd-Smith came to speak to the community on May 22nd 2013, such as those recorded in the minutes of the meeting of Larbert, Stenhousemuir and Torwood Community Council on the 29th October 2012 [CCoF 303], or those expressed in the Community Mandate [CCoF 4].

The Mandate, the communityôs principal objection letter, was first printed in early April 2013 and made only limited reference to Dr Lloyd-Smithôs work in relation to chemicals commonly associated with CBM operations. By the date of Dr Lloyd-Smithôs Falkirk presentation, 1500 had already been submitted to Falkirk Council ï which can be checked using dates on batches of signed Mandates, readily available to the DPEA ï and by the date the video of the presentation was uploaded to YouTube, the application had gone to appeal and was closed to further objections.

68. Irrespective of Dr Lloyd-Smith there is peer reviewed literature that refers to the potential for significant health impacts ï eg CCoF 77 ñAn Exploratory Study of Air Quality near Natural Gas Operationsò; CCoF 316 ñLeukemia Risk Associated with Low-Level Benzene Exposureò, which in themselves are sufficient to cause concern to the community.

69. Further, in cross-examination, Dart also claimed that the communities concerns were incited by Professor Smytheôs Review of G20 [CCoF 13], but this was not in the public domain until August 2013, again after the application had gone to appeal and the period for objections had closed. Moreover, the Review was not published on CCoFôs website until 1st December 2013.

Other impacts on community

70. CCoF rely on the following additional impacts on the Community:

a. The re-industrialization of the area contrary to the intend of MFIF as spoken to by Councillor Alexander;

b. Potential health risk and risk to water, air and the environment;

c. Transport impacts on recreation on the quiet roads in the area, including walking on Hamilton/Bogside Road, cycling on the circuit used by the Falkirk Cycle Club, the NCR;

d. Potential loss of value to the area for tourism, active travel, and incoming residents.

BENEFITS OF PROJECT

CCoF's position

71. CCoFôs position is that there are no substantial benefits, particularly for the local area, that would justify over riding the risks for the area and community that are inherent in the project. CCoF rely on the following:

a. Mr Bain conceded in cross examination that Dartôs parent company is Australian. Therefore any profits from the development are unlikely to benefit the United Kingdom.

b. While Mr Bain tried to say that this development would produce 20 jobs, it was clear from his evidence that such jobs were really dependent on Dartôs overall European activities, which might be used in connection with any expansion of the gas field site, and is clearly in contemplation if this planning application is given the go-ahead. DE81 page 45 states ñFew jobs will be created as a result of the proposals ï if further expansion is undertaken é there may be up to 20 additional jobs é ò ï CCoF submits that is the more likely scenario.

c. In so far as Mr Bain claims that Dart will use local contractors, he accepted that under EU rules and competitive tendering there is no guarantee that local firms will in fact be employed.

d. As the well sites once operations are to be unmanned, including the GDWTP which will be remotely monitored, it is unlikely that the development will create more than a few at the most additional jobs in the area. These are also likely to be temporary security or transport positions, which would not ñbe in keeping with the aspirations and character of the areañ [CCoF 4]

72. There was no convincing evidence from Dart that the gas from this field was needed in the national context, nor that balanced against the climate change objectives, it would be of benefit locally or nationally. Climate Change issues were raised by CCoF in CCoF 4 and CCoF 16. Otherwise CCoF relies on FoE (Scotland)ôs evidence on the impact on Climate Change and the relevant legislation ï Climate Change impact will be a significant impact on the community.

EXTRACTIVE WASTE MANAGEMENT PLAN [WMP] (DE(V)1)

CCoF's position

73. CCoFôs position is that:

a. In respect that a WMP that complied with Regulation 11 was not lodged along with the application for planning permission as required by Regulation 10(2) The Management of Extractive Waste (Scotland) Regulations 2010 [the 2010 Regulations] the planning application and the WMP are a defective and accordingly the application is null and void.

b. The WMP does not comply with the requirements of Regulation 11(1)(e) and Schedule 2 of the 2010 Regulations in that it does not provide a proper characterisation of the waste. In particular the WMP does not give the ñexpected physical and ñchemical characteristics of the wasteò or ña description of the chemical substances to be used during treatmentò as required by paragraphs (a) and (c) of Schedule 2. Accordingly the WMP does not comply with the requirements of Regulation 11.

c. Further, there has not been proper public participation as required by Article 8.1 of Directive 2006/21/EU. The 2010 Regulations do not adequately transcribe Article 8.1 and so CCoF may rely on the Directive directly. *Esto* there was adequate transcription, in the circumstances where the application for the WMP was not lodged along with the planning application as required by Regulation 10(2) of the 2010 Regulations, there has not been proper advertisement of the WMP with a right for public participation. In the absence of public participation in considering the WMP the Reporters cannot grant planning permission or approve the WMP.

d. In respect that Dart Energy (Forth Valley) Ltd is a shell company with no employees and the Reporters have no further information about the company itself, that the Reporters cannot evaluate the applicantôs ability to meet the objectives of the waste management plan as required by Regulation 13(1) and accordingly the planning application should be refused.

e. In so far as it might be argued that some of the above issues for not focused before or during the Inquiry/Hearing, the Reporters are an emanation of the State and are therefore required to ensure compliance with EU law and the requirements of Directive 2006/21/EU. In so far

as the Reporters represent the Scottish Ministers, they are required to act in a manner that is compatible with EU law ï section 57(2) of the Scotland Act 1998. Accordingly if it is held that there has been a breach of the requirements of the Directive the application for planning permission which can only be granted along with approval of the WMP should be refused.

74. ***Planning application lodged without WMP*** ï The 2010 Regulations came into force on 1st May 2012. The planning applications were lodged with both Councils on or just after 28 August 2012 [DE 16 & 17]. Regulation 10(2) provides:

ñ(2) An application to which this Part applies must be accompanied by a waste management plan which complies with the requirements of regulation 11.ò (underline added)

The planning application was not accompanied by a WPM and in so far as the WMP was lodged at a later date [after 14 February 2014] it did not comply with Regulation 11 for the reasons given below. The Requirement to lodge the WMP along with the planning application is perhaps to require that it be advertised along with the planning application in order to allow for public participation ï but see below. In these circumstances there is no competent and valid planning application or appeal before the Reporters and accordingly the appeal should be refused.

75. ***Failure to comply with Regulation 11(1)(e) & Schedule 2*** ï

a. Regulation 11(1) applies to a ñwaste management plan submitted by the operator of an extractive waste area or waste facilityò and provides that it ñmust é include the following - é

ñ(e) waste characterisation in accordance with Schedule 2 and a statement of the estimated total quantities of extractive waste to be produced during the operational phase;ò

Schedule 2 provides that:

ñThe waste to be deposited in a waste facility shall be characterised in such a way as to guarantee the long-term physical and chemical stability of the structure of the facility and to prevent major accidents. The waste characterisation shall include, where appropriate and in accordance with the category of the facility, the following aspectsð

(a) a description of the expected physical and chemical characteristics of the waste to be deposited in the short and long termé
(b) é ;

(c) a description of the chemical substances to be used during treatment of the mineral resource and their stability;
(d) é ò.

b. The WMP contains no ñchemical characteristics of the wasteò no a description of ñchemical substances to be used during treatment of the mineral resourceò. Accordingly it is not a WMP that complies with Regulation 11 as required by Regulation 10(2) to be lodged along with the planning application. It is clear that specification of the ñchemical characteristics of the wasteò and the ñChemical substances to be usedò is required in order that the waste can properly be characterised in terms of the Regulations and so that the public can properly participate in expressing comments and opinions to the planning authority ï Directive 2006/21/EU Article 8.4 ï see the purpose of characterisation in Preamble (2) of Commission Decision 2009/360/EC:

ñ(2) The purpose of the characterisation of extractive waste is to obtain the relevant information on the waste to be managed in order to be able to assess and monitor its properties, behaviour and characteristics and thereby ensure that it is managed under environmentally safe conditions in the long term. Furthermore, the characterisation of extractive waste should facilitate the determination of the options for managing such waste and the related mitigation measures in order to protect human health and the environment.ò

c. Even though the Schedule to appears to refer to ña waste facilityò alone, there is no such distinction in Regulation 11(1) which applies to both ñan extractive waste areaò and to a ñwaste facilityò. That compliance with Regulation 11(1)(e) is required for both ñan extractive waste areaò and a ñwaste facilityò is confirmed by (i) the construction of Regulation 11(1)(e), (ii) the Guidance On The Management Of Extractive Waste (Scotland) Regulations 2010 at §s 6, 9 to 16 and Annexes D & E (iii) Directive, and (iv) Directive 2006/21/EC at Article 5(1) which refers ña waste management planò and requires at article 5(3)(b) the same requirements as in Regulation 11(1)(e) and Schedule 2, which is repeated *verbatim* in the 2010 Regulations. The Directive does not make a distinction between ñan extractive waste areaò and a ñwaste facilityò.

d. In these circumstances the planning application and appeal are incompetent and the appeal should be refused.

76. ***Failure to have proper public participation*** ï

a. Preamble (17) of the Directive 2006/21/EU provides:

ñ(17) Member States should be required to ensure that, in accordance with the UNECE Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters of 25 June 1998 (Aarhus Convention), the public are informed of the application for a waste management permit and the public concerned are consulted prior to the granting of a waste management permit.ò

Article 8 provides for the public to be informed about details of the application for a WMP and for certain information to be made available to the public and Article 8(4) and (7) provide that:

ñ4. The public concerned shall be entitled to express comments and opinions to the competent authority before a decision is taken.
é
7. The detailed arrangements for public participation under this Article shall be determined by the Member States so as to enable the public concerned to prepare and participate effectively.ò

b. There are no detailed arrangements within the 2010 Regulations for effective participation by members of the public to express comments and opinions to the competent authority. In so far as the as the 2010 Regulations do not effectively transcribe the Directive the public has not had a proper opportunity to express comments and opinions. In so far as Regulations 10(2) requires a WMP to be lodged with the planning application and that under Regulation 10(3) the WMP might be advertised along with the planning application [although that is not specified in Regulation 10(3)], that does not comply with the requirements of Article 8 by requiring the information set out in that Article to be made available to the public. Accordingly the application for planning permission which can only be granted along with approval of the WMP, is null and void and the appeal should be refused.

c. Alternatively, if Regulations 10(2) & (3) are deemed to comply with Article 8, in the present case there has not been compliance with those Regulations and the public have been denied the opportunity to participate as required by the Directive. The WMP was not lodged along with the planning application; it was provided during the course of the appeal proceedings shortly after 14 February 2014 after it was too late for members of the public to take part in the appeal. It has not be advertised in a manner that complies with Article 8 and nor has the public been given an opportunity to participate and express comments and opinions. Accordingly the application for planning permission which can only be granted along with approval of the WMP, is null and void and the appeal should be refused.

77. ***The ability of Dart Energy (Forth Valley) ltd ability to meet the objectives of the waste management plan*** - In respect that Dart Energy (Forth Valley) Ltd is a shell company with no employees and the Reporters have no further information about the company itself, that the Reporters cannot evaluate the applicantôs ability to meet the objectives of the waste management plan as required by Regulation 13(1) and accordingly the planning application should be refused.

Regulation 13(1) provides:

13(1) A planning authority shall evaluate the applicantôs ability to meet the objectives of the waste management plan, taking account of the extent to which compliance will be secured through other national or Community legislation, and consider whether the applicant has complied with the requirements of these Regulations.

Without full details about Dart Energy (Forth Valley) Limited and details of any contractual arrangements between that company and any other company in the Dart Energy group, the Reporters are not in a position to make that evaluation. Accordingly the application for planning permission which can only be granted along with approval of the WMP, is null and void and the appeal should be refused.

OTHER ISSUES

Transport

78. CCoF adopt what is said in the Hearing Statement section 3 ñCCoFôs case as Hearing Session 1: roads and trafficò and in the Supplementary Hearing Case (Transport) submitted at the hearing. CCoFôs position is that this is a major impact on the recreational use made by the community of the quiet roads and cycle networks and amounts to one of the significant impacts on the community.

Habitats and Ecology

79. CCoF adopt what is said in the Hearing Statement section 5 ñCCoFôs case at Hearing Session 3; habitats and ecologyò in relation to Habitats and Ecology and refer to the documents referred to in that section of the Hearing Statement. Reference is also made to the evidence given at the Hearing Session regarding disturbance of an important great crested newt breeding site [an EU protected species], and the possible impact on the ecology of the Pow Burn as the result of chemical run-off from proximate well head and GDWTF soakaways via field drainage systems, including otters [an EU protected species] and water voles.

Landscape and visual impacts

80. CCoF adopt what is said in the Hearing Statement section 6 ñCCoFôs case at Hearing Session 4; landscape and visual impactsò in relation to landscapes and visual impacts and refer to the documents referred to in that section of the Hearing Statement. CCoF also adopts Stirling Councilôs position on the landscape impact as given in evidence by the Councillor. The introduction of well head sites amounts to an industrialisation of the area of the application site.

IF PLANNING PERMISSION GRANTED

Conditions and legal agreements

81. CCoF adopt what is said in the following sections of its óComments on Planning Conditionsô:

a. section 2.1, in relation to groundwater protection and borehole casing design specification;

b. section 2.6 (except paragraphs 2.6.6 to 2.6.9) in relation to community engagement ï see also paragraphs 78 to 84 below;

c. section 2.8, in relation to financial provision to secure full restoration of well-sites;

d. section 2.9, in relation to financial provision to secure full restoration of the site of the GDWTF;

e. section 2.11, in relation to the location of the discharge outfall point;

f. section 2.12, in relation to the specification of materials used in pipes for transporting gas and produced water; and

g. section 3.2 and Appendix 2 (except for references to óDesignated Community Bodyô).

82. CCoF seek the inclusion of conditions covering the following:

- community engagement and participation
- extra traffic management measures
- emission limit values for air pollutants
- monitoring of radon
- buffer zone/no lateral borehole from Airth 6 & 8 near Kinnaird Village.

References to existing conditions are to those conditions as numbered in the schedule of planning conditions submitted on behalf of the Appellant on 10 March 2014, as approved by Falkirk Council and SEPA (but not by Stirling Council).

83. In addition, CCoF consider that a section 75 agreement or agreements should be entered into in order to secure the undertakings given by the Appellant during the inquiry proceedings that do not relate specifically to the planning applications under appeal.

Community engagement

84. The imposition of a community engagement and/or participation condition is consistent with Circular 2/2012 ñPlanning Obligations and Good Neighbour Agreementsò [DE(V)2] and PAN 81 ñCommunity Engagementò [CCoF 57]

85. In Decision PPA-320-2011 Shore Energy Ltd v North Lanarkshire Council, relating to an application for planning permission for a ñCommercial, Industrial and Municipal Waste Material Recovery and Renewable Energy Facilityò the Reporters imposed community engagement conditions in the following terms:

ñ23. No development shall commence on site until the developer has taken all reasonable steps to establish a community liaison committee of 5 persons. To that end, the developer shall invite the local community to nominate up to 2 representatives to sit on the committee together with a representative from the Scottish Environment Protection Agency and a representative from the planning authority. The representative of the developer may be accompanied by such other persons as may be of assistance to the committee in carrying out its work. Meetings of the committee shall be held on site every quarter or at longer intervals as the committee members may determine appropriate.

(*Reason: In the interests of best practice in community engagement; and to ensure that the local community is kept informed about the development and that any concerns of the local community regarding potential environmental and amenity impacts are taken into account in the construction and operation of the development.*)ò

24. Within 3 months of the commencement of development, the developer shall produce a coordinated non-technical summary environmental report for the site which will include the matters covered by conditions 7-9 and 13-17, which will be made available to the planning authority and the community liaison committee, to be established in compliance with condition 23. The report will then be updated on each anniversary after its first issue, to report on the progress of the measures contained therein.

*(Reason: To enable the local community to be fully informed and for the planning authority to consider these aspects in the interests of the amenity of the site and surrounding area.)*ò

86. CCoF suggest the following conditions (text in bold show the changes to the precedent conditions):

Condition [Supp 1]

No development shall commence on site until the developer has, **acting in good faith,** taken all reasonable steps to establish a community liaison committee of **6** persons **and the developer shall regularly report back to the Planning Authority on the steps it is has taken to establish such committee**. To that end, the developer shall invite the local community to nominate up to 2 representatives to sit on the committee together with a representative from the Scottish Environment Protection Agency**, a representative from Stirling Council** and a representative from the Planning Authority. **Each** representative may be accompanied by such other persons as may be of assistance to the committee in carrying out its work. Meetings of the committee shall be held **every 4 weeks before and during the construction and commissioning phases, and thereafter** every quarter or at longer intervals as the committee members may determine appropriate, **and chaired (if deemed appropriate by a majority of the committee members) by an independent person who is a specialist in relation to group facilitation, such independent person to be nominated by the President or duly qualified officer of the Centre for Effective Dispute Resolution and paid for by the developer**.

(Reason: *In the interests of best practice in community engagement; and to ensure that the local community is kept informed about the development and that any concerns of the local community regarding potential environmental, **health, wellbeing** and amenity impacts are taken into account in the construction and operation of the development.) 26*

[Supp 2]

No less than 4 weeks prior to the submission to the Planning Authority of any scheme, plan, schedule, details or information required by conditions 3, 12, 15, 26, 31, 31A, 38, 42, 50 and 52, the developer shall provide to the community liaison committee, to be established in compliance with condition [Supp 1], a draft of the said scheme, plan, schedule, details or

information, and shall submit the said scheme, plan, schedule, details or information to the Planning Authority accompanied by any comments duly made by the said committee within 4 weeks of its having received the said draft.

(Alternatively, where each of the above mentioned suspensive conditions (in relation to the proposed conditions for Falkirk Council) refers to plans, schemes, details or information being approved by the Planning Authority in consultation with Stirling Council and or SEPA as appropriate, to add the words ñand the community liaison committee to be established in compliance with [Supp 1]ò as an additional body for consultation.)

(Reason: ***In the interests of best practice in community participation; and to ensure that the local community may participate in the establishing of more detailed arrangements for monitoring the environmental, health, wellbeing and amenity impacts of the development.)***

Condition [Supp 3]

Within 3 months of the commencement of development, the developer shall produce a co-ordinated non-technical summary environmental report for the site which will include the matters covered by conditions **3, 12, 15, 26, 31, 31A, 38, 42, 50 and 52**, which will be made available to the planning authority and the community liaison committee, to be established in compliance with condition [Supp 1]. The report will then be updated on each anniversary after its first issue, to report on the progress of the measures contained therein **and include any reasonable comments of the community liaison committee in relation to those measures**.

(*Reason*: *To enable the local community to be fully informed* ***on the results of the monitoring of the environmental, health, wellbeing and amenity aspects of the development;*** *and for the planning authority to consider these aspects in the interests of the amenity of the site and surrounding area.)*

82. Amendments have been drafted in accordance with a ñredlineò approach so that the additions to the precedent conditions can each individually be considered and included or not, as deemed appropriate to the circumstances of this Appeal.

83. Meetings of the committee need to be more frequent before and during the construction and commissioning phases so as not to delay the implementation of the planning permission, if granted, beyond what is reasonable to secure effective community participation (see below). As it is not in the Appellantôs control to establish the community liaison committee, the proposed condition [Supp 1] only requires the Appellant to take reasonable steps to do so. Ensuring some form of regular feedback to the Planning Authority on the reasonable steps it is taking to do so is a prudent measure for effective regulation. An independent person to chair and facilitate the meetings of the

committee will help mediate proceedings and establish protocols for exchange of information, in order to improve transparency and trust. The Centre for Effective Dispute Resolution (CEDR) is a recognised professional body in a good position to nominate such a person. The condition as amended leaves it at the discretion of the committee as to how proceedings are to be conducted, including whether or not to nominate a person to facilitate meetings.

84. The concept of a yearly non-technical summary environmental report in the precedent conditions provides a mechanism for limited community involvement, but it does not permit either effective community participation in the detailed arrangements for environmental monitoring, habitat management, traffic management etc, or for ongoing community involvement in the results of such monitoring and management. Such participation may be achieved if the committee is able (i) to see and comment on the draft management plans and other schemes setting out proposals for those arrangements ([Supp 2] and its alternative) and (ii) to feedback on the summary environmental report detailing the results of such arrangements once implemented rather than just being informed about it.

85. There are 28 suspensive conditions in the agreed schedule of conditions. The 10 suspensive conditions to be covered by the proposed community participation condition and the summary environmental report are listed from the perspective of what CCoF considers appropriate and reasonable.

Traffic Management

86. Condition 38 should include an additional bullet point denoting an additional matter to be covered in the proposed traffic management plan, as discussed at Hearing Session 1:

- *measures to minimise interference with the public amenity use of Moss Road and Bogend Road (e.g. by cyclists, walkers, horse riders) and clear and effective mechanisms to communicate such measures to the public and evaluate and review the effectiveness of the measures.*

Emission limit values for fugitive gas emissions and air pollutants

87. Normally a planning permission would not include emission limit values (ELVs) for air pollutants, because air pollution from processes such as coal bed methane production is normally regulated by the Pollution Prevention and Control (Scotland) Regulations 2012, and such ELVs would be included in any permit issued by SEPA under those regulations. Thus in relation to the current proposal, fugitive emissions of gases or other air pollutants from the GDWTF will be controlled by means of ELVs in any permit that SEPA issues to the Appellant. However, as things stand, it appears that SEPA will not regulate fugitive emissions of gases arising either through geological pathways or from the well-heads or pipelines linking the well-heads to the GDWTF, so

ultimate responsibility for controlling such emissions will rest with the planning authority.

88. Although Condition 12 includes a requirement for the proposed Water and Gas Monitoring Plan (WGMP) to include ñdetails of thresholds (or trigger levels) [of *inter alia* concentrations of gases from sub-surface operations] that, if breached, will result in a hierarchal (*sic*) range of actions being undertaken by the Appellant (*sic*) to minimise environmental risksò, and Condition 43 (relating to the proposed Air Quality Management Plan (AQMP)) includes a similar requirement in relation to air pollutants from the surface infrastructure, there is no mechanism for establishing absolute limits for emissions beyond which enforcement action by the planning authority should be considered. Ideally ELVs should be included as planning conditions, but as the setting of appropriate ELVs will require SEPAôs input, they may appropriately be included in the relevant management plan instead, so both of the above-mentioned conditions should be amended, as follows:

- Condition 12 should be amended by adding, after the fifth sentence, the following extra sentence: ñThe WGMP shall also include emission limit values for such gases, exceedance of which shall constitute a breach of this conditionò.

- Condition 43 should be amended by adding, after the second sentence, the following extra sentence: ñThe AQMP shall also include emission limit values for such air pollutants, exceedance of which shall constitute a breach of this conditionò.

Monitoring of radon

89. The agreement between Mr Shehu Saleh for the Appellant and Dr Ian Fairlie for CCoF in relation to radiological evidence states that ñDart has agreed to carry out baseline monitoring [of radon]ò. This undertaking should be translated into a planning condition, by amendment of Conditions 12 and 43, as follows:

- Condition 12 should be amended by replacing, at the end of the fourth sentence, the words ñconcentrations of gas (e.g. CBM)ò with the words ñconcentrations of gases including, but not limited to, CBM and radonò.

- Condition 43 should be amended by adding, in the first sentence, after the words ñthe range of air pollutants that are proposed to be monitoredò the words ñ(including, but not limited to, radon)ò.

Buffer zone/no lateral borehole from Airth 6 & 8 near Kinnaird Village

90. The Appellant has undertaken not to drill the proposed lateral borehole from Airth 6 & 8 that was included in the planning application. CCoF welcome this undertaking, but understand that the Appellant may still have plans to develop the existing vertical boreholes at that site by horizontal drilling for which it

already has planning permission. Separately, there were discussions at Hearing Session 5 about proposals for a buffer zone.

91. In relation to the current proposal, CCoF consider that the following condition would secure a degree of protection for the residents of Kinnaird Village and any other groups of houses in the Proposed Development Area (PDA) without jeopardising the whole development:

- ñNo development shall occur on or below the surface of the land, within 1000 metres of any group of 3 or more dwelling-houses or of any school, medical centre, play-park or other community facility.ò

92. In addition, section 75 agreements should be entered into by the Councils and the Appellant in order to secure similar protection for all such residents in the PDA, whether or not in connection with the current proposal.

Section 75 agreements to cover other matters

93. The Appellant stated that hydraulic fracturing will not be used at any of its existing boreholes in the PDA. As all existing boreholes are covered by existing planning permissions, this undertaking can only be secured through a section 75 agreement.

94. The Appellant stated that the proposed Water and Gas Monitoring Plan would cover all existing boreholes in the PDA. As all existing boreholes are covered by existing planning permissions, this undertaking can only be secured through a section 75 agreement.

FINAL SUBMISSION

87. For all the reasons given above, the two planning appeals should be refused.

14 April 2014