

Strategic Overview & Scrutiny Panel

Mersea Centre (MICA), West
Mersea

23 September 2008 at 6:00pm

Strategic Overview and Scrutiny Panel deals with reviewing corporate strategies within the Council's Strategic Plan, the Council's budgetary guidelines for the forthcoming year, scrutinising the Forward Plan, the performance of Portfolio Holders and scrutiny of Cabinet decisions or Cabinet Member decisions (with delegated power) which have been called in.

Information for Members of the Public

Access to information and meetings

You have the right to attend all meetings of the Council, its Committees and Cabinet. You also have the right to see the agenda, which is usually published 5 working days before the meeting, and minutes once they are published. Dates of the meetings are available at www.colchester.gov.uk or from Democratic Services.

Have Your Say!

The Council values contributions from members of the public. Under the Council's Have Your Say! policy you can ask questions or express a view to meetings, with the exception of Standards Committee meetings. If you wish to speak at a meeting or wish to find out more, please pick up the leaflet called "Have Your Say" at Council offices and at www.colchester.gov.uk.

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Mobile phones, pagers, cameras, audio recorders

Please ensure that all mobile phones and pagers are turned off before the meeting begins and note that photography or audio recording is not permitted.

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There is wheelchair access to the Town Hall from West Stockwell Street. There is an induction loop in all the meeting rooms. If you need help with reading or understanding this document please take it to Angel Court Council offices, High Street, Colchester or telephone (01206) 282222 or textphone 18001 followed by the full number that you wish to call, and we will try to provide a reading service, translation or other formats you may need.

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Toilets are located on the second floor of the Town Hall, access via the lift. A vending machine selling hot and cold drinks is located on the ground floor.

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Evacuate the building using the nearest available exit. Make your way to the assembly area in the car park in St Runwald Street behind the Town Hall. Do not re-enter the building until the Town Hall staff advise you that it is safe to do so.

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Terms of Reference

Strategic Overview and Scrutiny Panel

- To review corporate strategies
- To ensure the actions of the Cabinet accord with the policies and budget of the Council
- To monitor and scrutinise the financial performance of the Council, and make recommendations to the Cabinet particularly in relation to annual revenue and capital guidelines, bids and submissions
- To link the Council's spending proposals to the policy priorities and review progress towards achieving those priorities against the Strategic / Action Plans
- To scrutinise executive decisions made by Cabinet and the East Essex Area Waste Management Joint Committee and Cabinet Member decisions (with delegated authority taking a corporate / strategic decision) which have been made but not implemented, and referred to the Panel through call-in.

The panel may a) confirm the decision, which may then be implemented immediately, b) confirm the decision back to the decision taker for further consideration setting out in writing the nature of its concerns, or c) refer the matter to full Council in the event that the panel considers the decision to be contrary to the Policy Framework of the Council or contrary to, or not wholly in accordance with the Budget.

- To monitor effectiveness and application of the call-in procedure, to report on the number and reasons for call-in and to make recommendations to the Council on any changes required to ensure an effective operation.
- To scrutinise the Cabinet's performance in relation to the Forward Plan.
- To scrutinise the performance of Portfolio Holders.
- At the request of the Cabinet, make decisions about the priority of referrals made in the event of the volume of reports to the Cabinet or creating difficulty for the running of Cabinet business or jeopardising the efficient running of Council business.

**COLCHESTER BOROUGH COUNCIL
STRATEGIC OVERVIEW & SCRUTINY PANEL
23 September 2008 at 6:00pm**

Members

Chairman : Councillor Arnold.
Deputy Chairman : Councillor Kimberley.
Councillors Barlow, Cory, Hazell, Higgins, Hogg, Naish,
Pyman, Taylor and Young.

Substitute Members : All members of the Council who are not Cabinet members or members of this Panel.

Agenda - Part A

(open to the public including the media)

Members of the public may wish to note that agenda items 1 to 5 are normally brief and agenda items 6 to 9 are standard items for which there may be no business to consider.

Pages

1. Welcome and Announcements

(a) The Chairman to welcome members of the public and Councillors and to remind all speakers of the requirement for microphones to be used at all times.

(b) At the Chairman's discretion, to announce information on:

- action in the event of an emergency;
- mobile phones switched to off or to silent;
- location of toilets;
- introduction of members of the meeting.

2. Substitutions

Members may arrange for a substitute councillor to attend a meeting on their behalf, subject to prior notice being given. The attendance of substitute councillors must be recorded.

3. Urgent Items

To announce any items not on the agenda which the Chairman has agreed to consider because they are urgent and to give reasons for the urgency.

4. Declarations of Interest

The Chairman to invite Councillors to declare individually any personal

interests they may have in the items on the agenda.

If the personal interest arises because of a Councillor's membership of or position of control or management on:

- any body to which the Councillor has been appointed or nominated by the Council; or
- another public body

then the interest need only be declared if the Councillor intends to speak on that item.

If a Councillor declares a personal interest they must also consider whether they have a prejudicial interest. If they have a prejudicial interest they must leave the room for that item.

If a Councillor wishes to make representations on an item on which they have a prejudicial interest they may do so if members of the public are allowed to make representations. In such circumstances a Councillor must leave the room immediately once they have finished speaking.

An interest is considered to be prejudicial if a member of the public with knowledge of the relevant facts would reasonably regard it as so significant that it is likely to prejudice the Councillor's judgement of the public interest.

Councillors should consult paragraph 7 of the Meetings General Procedure Rules for further guidance.

5. Minutes

1 - 5

To confirm as a correct record the minutes of the meeting held on 8 September 2008.

6. Have Your Say!

(a) The Chairman to invite members of the public to indicate if they wish to speak or present a petition at this meeting – either on an item on the agenda or on a general matter not on this agenda. You should indicate your wish to speak at this point if your name has not been noted by Council staff.

(b) The Chairman to invite contributions from members of the public who wish to Have Your Say! on a general matter not on this agenda.

7. Items requested by members of the Panel and other Members

(a) To evaluate requests by members of the Panel for an item

relevant to the Panel's functions to be considered.

(b) To evaluate requests by other members of the Council for an item relevant to the Panel's functions to be considered.

8. Referred items under the Call in Procedure

To consider any Portfolio Holder decisions, taken under the Call in Procedure.

The panel may a) confirm the decision, which may then be implemented immediately, b) confirm the decision back to the decision taker for further consideration setting out in writing the nature of its concerns, or c) refer the matter to full Council in the event that the panel considers the decision to be contrary to the Policy Framework of the Council or contrary to, or not wholly in accordance with the Budget.

9. Decisions taken under special urgency provisions

To consider any Portfolio Holder decisions taken under the special urgency provisions.

10. A New Nuclear Power Station At Bradwell

6 - 19

Have Your Say!

The amount of time afforded to public participation on a single item is at the absolute discretion of the Chairman.

The Chairman to invite contributions from members of the public who wish to Have

Your Say! on the following item. A member of the public may ask questions or make a statement for a period not exceeding three minutes.

At the absolute discretion of the Chairman, a question may be asked of the participant by a Member of the Panel and the participant may give an answer or decline to do so.

A new Nuclear Power Station at Bradwell

See report from the Scrutiny Officer

Guest attendees are:-

Professor Andrew Blowers OBE

Open University

Professor Robin Grimes

Professor of Materials Physics
Imperial College London

Dr William Nuttall

University Senior Lecturer in Technology Policy
Judge Business School, Cambridge

Professor Stephen Thomas

Professor of Energy Studies
The University of Greenwich

Interested company and agency representatives will also be present at the meeting.

11. Exclusion of the public

In accordance with Section 100A(4) of the Local Government Act 1972 and in accordance with The Local Authorities (Executive Arrangements) (Access to Information) (England) Regulations 2000 (as amended) to exclude the public, including the press, from the meeting so that any items containing exempt information (for example confidential personal, financial or legal advice), in Part B of this agenda (printed on yellow paper) can be decided. (Exempt information is defined in Section 100I and Schedule 12A of the Local Government Act 1972).

STRATEGIC OVERVIEW & SCRUTINY PANEL

8 SEPTEMBER 2008

Present :- Councillor Christopher Arnold (Chairman)
Councillors Pauline Hazell, Peter Higgins, Mike Hogg,
Margaret Kimberley, Kim Naish, Gaye Pyman,
Nick Taylor and Julie Young

Substitute Members :- Councillor Nick Gamble for Councillor Nick Barlow
Councillor Mark Offen for Councillor Mark Cory

13. Minutes

The minute of the reconvened meeting held on 15 July (adjourned from 10 June 2008) was confirmed as a correct record. The minute of the meeting held on the 15 July was confirmed as a correct record.

14. Have Your Say!

Mrs Paula Whitney attended the meeting asking questions concerning the September review of the Bradwell New Build Nuclear Power Station to be undertaken at West Mersea. Mrs Whitney enquired about the invited speakers, who had invited them, suggesting their attendance would not give the meeting and debate a balanced view. Mrs Whitney also said that at a recent meeting of the East Essex Forum a similar debate had also lacked a balance, with the only presentation coming from British Energy. Mrs Whitney concluded by saying there were issues about the suitability of the site that needed to be addressed e.g. earthquake fault-lines.

Mr. Robert Judd, Scrutiny Officer addressed the panel explaining that invitations to all expert witnesses, public bodies and private companies had been sent by himself. The witnesses had been invited on the basis of that at each stage of discussion, their expertise would be called upon to provide knowledge and understanding to members. Experts would not be asked to give presentations, but ask questions from the panel. This review would be an open debate that may require additional meetings in order to finalise any proposals. Mr. Judd said he hoped all those present on the evening would collectively give balance to the overall debate.

Mrs. Pam Donnelly, Executive Producer confirmed that the Executive had been a part of the overseeing of the process in regards to the final report and the invitation of expert witnesses.

Councillor Arnold confirmed that this review was not linked to any planning application and in regards to the review there would be no recommendation given, which would be beyond the powers of the scrutiny panel.

15. To evaluate requests by other members of the Council

Councillor Chapman addressed the panel saying that Firstsite Newsite was at the heart of the Council's Corporate Strategy and town centre regeneration. Councillor Chapman believed all members should know what is happening with this project and asked the panel to consider a review of Firstsite Newsite.

Councillor Offen confirmed that the Financial Arrangements for Firstsite Newsite would be reviewed by the Finance and Audit Scrutiny Panel (FASP) in October 2008. Councillor Arnold confirmed that the Council's partnership arrangements with Firstsite would be reviewed by the Strategic Overview and Scrutiny Panel in November 2008.

RESOLVED that the panel agreed for the Scrutiny Officer to consult with officers to determine the terms of reference of the FASP review. The potential for a review of Firstsite Newsite by SOSF would be discussed at the next meeting.

16. Work Programme

Councillor Arnold requested a review of the 2009-10 Budget with the newly drafted Strategic Plan at the meeting of 16 December 2008, in line with the review undertaken in 2007-08 for the 2008-09 Budget.

RESOLVED that the panel noted the rolling Work Programme and agreed to the additional item on the 2009-10 Budget / Strategic Plan to be added for review on 16 December 2008.

Councillor Mike Hogg (in respect of being the Chairman and Trustee of the St Anne's Community Trust Association) declared a personal interest in the following item pursuant to the provisions of Meetings General Procedure Rule 7(3)

17. 2009-10 Budget Strategy and Timetable

Mrs Paula Whitney addressed the panel. Mrs Whitney enquired as to what work was being conducted with Braintree District Council. Mrs Whitney also enquired as to whether the sums of money set aside for the provision of recycling sacks, waste and street cleaning could not be used to contribute to the expansion of the kerbside collection fleet and food waste trials.

Councillor Smith responded to Mrs Whitney saying that Colchester and Braintree District Council were involved in partnership working, looking at a number of service areas where services could be unified, services such as Parking. It was envisaged that partnership working would through economies of scale provide greater efficiencies and savings.

Councillor Young responded to Mrs Whitney saying a waste collection review that included food waste trials was ongoing. The review was due for completion in October and would be reflected in the future Budget and Strategic Plan.

Mr. Sean Plummer, Finance Manager introduced the 2009/10 Budget Strategy and Timetable report to the panel.

Councillor Chapman addressed the panel, requesting further information on Local Authority Carbon Management (LACM), a capital programme deferred until there is more certainty over the future capital programme.

Councillor Chapman said he would like to know more about how the project is being put together, and given that Colchester was currently on course to meet its reduction in carbon emissions target by 2020, whether the fund was sustainable and the timetable for setting up and managing the project.

Councillor Smith, Portfolio Holder for Resources and Business addressed the panel explaining that the Cabinet was fully committed to ensuring it met its carbon emissions reduction target by 2020. Councillor Smith said there is current uncertainty and a severe financial strain on the Capital Programme due to the outstanding liability of Firstsite Newsite, and this made it difficult to extend spending to other areas such as LACM.

Given the assurances of Councillor Smith, Councillor Arnold requested that paragraph 12.5 of the Budget report was phrased differently to give more assurance and greater clarification to the LACM programme.

In response to Councillor Hogg, Mr. Plummer said the general fund balances remained £200,000 higher than the current assessed prudent level of £1,700,000 as illustrated in the General Fund Balances in the 9 July 2008 Cabinet report.

In response to Councillor Taylor question on Zero Based Budgeting, Councillor Smith said at the beginning of this municipal year Service Managers were asked to discuss how a 10% reduction could be made to their service budgets and the Cabinet and Senior Officers considered the effect of this reduction. Whilst this was not a Zero Based Budget approach this was considered the best approach given the limited amount of time allowed.

In response to Councillors Taylor and Arnold, Councillor Smith said the Budget Strategy would include Major Service Reviews such as the Braintree Work, Accommodation Project and WWW ICT Strategy. These reviews would have agreed outputs and links to the Strategy, and would form future decisions to be taken by the Cabinet or Portfolio Holder(s), subject to openness and transparency through the call-in process.

In response to Councillor Taylor, Councillor Smith said, given the current economic conditions, there was a risk that the inbuilt budget inflationary figure of 2.9% might not

be sufficient, that there was a risk that inflation could be higher.

In response to Councillor Kimberley, Councillor Smith said the local pay settlement was ongoing and every effort was being made to bring this to a conclusion, though the impact of the settlement was included within the Budget. Councillor Smith confirmed that the two new Street Wardens are to be employed in the Highwoods Area.

Members debated at some length projects, funded and unfunded, to be removed from the Capital Programme as illustrated in Appendix F of the report. Members spoke of their concerns over the removal of these projects and whether, for example local parishes, affected by these cuts, had been consulted on this proposed decision. Councillor Arnold said the impact of removing these projects from the Capital Programme should be considered and detailed in the report before a final decision is taken.

Given Councillor Smith's comment that these projects were only to be suspended at present, Councillor Smith agreed to the Panel's request that the term 'Amount to remove' should be replaced by 'Projects put on hold'

In response to Councillor Higgins, Councillor Smith said that in reference to the Braintree project, it was anticipated that services such as Parking Services would work more efficiently by merging and would through the economies of scale, provide revenue savings. With regard to the sale of the Layer Road site, Councillor Smith said had there been an earlier agreement on the sale of the site at a fixed price the sale price would have been considerably more and a better deal for the Council.

Councillor J Young left the meeting at this point.

In response to Councillor Naish, Councillor Smith said a decision to give free swimming to the over 60s age group had been taken and was currently within the call in period. Councillor Smith said this scheme would attract a grant of £10,000 for the next two years, which would offset the loss of income.

RESOLVED that the panel:

- i) Noted the 2009-10 Budget Strategy and Timetable.
- ii) Requested the Cabinet to rephrase the Capital Programme item on Local Authority Carbon Management (LACM) to give more assurance and greater clarification to the programme, as agreed with the Portfolio Holder for Resources and Business.
- iii) Requested the Cabinet to rephrase the Heading of Appendix F showing the list of capital projects and amounts to be removed, with 'Projects put on hold', as agreed with the Portfolio Holder for Resources and Business.
- iv) Requested that when Cabinet proposes to withdraw or suspend funding for an item for which funding has previously been agreed, as shown in Appendix F, a description of the impact of the change(s) should be published simultaneously.

v) Noted the offer from Councillor Smith to make the findings of internal reviews available to shadow portfolio holders on the same conditions under which shadow portfolio holders had access to such information in the past.



Strategic Overview and Scrutiny Panel

Item
10

23 September 2008

Scrutiny Officer

Author **Robert Judd**
Tel. 282274

Title **A new Nuclear Power Station at Bradwell**

Wards affected All

The Panel is invited to consider the issue of civil nuclear electricity generation in the United Kingdom, and the possibility of a new build nuclear power station at Bradwell.

1. Action(s) Required

- 1.1 To agree the position to be adopted by the Council on civil nuclear electricity generation and the possible building of a new nuclear power station at Bradwell. Members may refer to section 9 of this report 'A way forward' to help them in drawing their conclusions.

2. Reasons for Action(s)

- 2.1 Following a Council motion on the 20 February 2008, where the Council considered that the possible construction of a new nuclear power stations, so close to the Borough of Colchester would arouse a great deal of local interest, discussion and even controversy. The Council therefore requested the Strategic Overview and Scrutiny Panel to consider all sides of the argument with a recommendation that expert witnesses be invited to assist the Panel in its deliberations and that the outcome and any recommendations be reported to the Cabinet and Full Council for decision.

Action(s) to be taken

- 2.2 Members of the Panel should understand that the purpose of this review is to assist the Council in making an informed decision. Based on the evidence presented to the panel, the panel will need to consider what action it can recommend. It is advised that any recommendation should be in the form of letter(s), declaration or response to consultations.

3. Summary

- 3.1 The purpose of this report is to inform members about the current civil nuclear energy industry, both nationally and locally. It is hoped this report, together with an open debate on 23 September 2008, will give members a better understanding of all the issues that need to be considered.
- 3.2 The report gives a brief insight into nuclear energy both nationally, and where appropriate, locally in reference to Bradwell, a possible site for a new nuclear power station.

3.3 This report is broken down into five main headings as follows;

- The future of civil nuclear energy (policy)
- New nuclear power stations and the roles of the Health and Safety Executive and Environment Agency
- Risk, Health and Safety in the civil nuclear industry
- The potential of Bradwell as a site for a new nuclear power station
- The potential of alternative renewable fuels and systems

3.4 When considering the contents of this report members of the panel should be mindful that;

- The subject of nuclear energy and all its component parts is vast.
- The subject is broken down into many areas with experts in various fields of activity and study.
- Research into this subject reveals there are diverse expert opinions
- It would not be possible to debate nuclear energy and all its component parts in one meeting.

3.5 At the meeting on the 23 September, the Panel will be helped in their deliberations by expert witnesses. These will be;

Professor Andrew Blowers
Professor Robin Grimes
Dr William Nuttall
Professor Steve Thomas.

Representatives from public agencies will also be present to advise members.

4. The future of civil nuclear energy

4.1 The BBC 'Guide to UK nuclear power' (appendix A) offers a simple guide and explanation of where the current nuclear power stations are located, their generating capacity and anticipated closure date, how the power stations work, how nuclear waste is dealt with and the cost of producing nuclear power.

4.2 In May 2007 the Government's Department of Trade and Industry published a consultation paper on new nuclear power stations with the purpose of providing information to the Government to help it take the decision on whether or not to allow energy companies to build new nuclear power stations in the United Kingdom. The consultation ran between May and October 2007. A copy of the paper The Future of Nuclear Power can be seen as a background document to this report. For further details go to <http://nuclearpower2007.direct.gov.uk/>

4.3 In response to the Government consultation, the Nuclear Consultation Working Group, an independent group of individuals, which comprises many of the leading experts in the fields of environmental risk, radiation waste, energy policy, energy economics and political and social science, published a report Nuclear Consultation: Public Trust in Government. The group said that the purpose of the report was to analyse the form and function of the UK nuclear consultation process and provide a clear and thoughtful discussion on the issues and challenges that were not transparently presented to the public during the consultation. The conclusions of this report can be seen in Appendix G.

A copy of the full report, including the recommendations, can be seen as a background document to this report. For further details go to <http://www.nuclearconsult.com/>

- 4.4 The Government's Planning Bill was published in November 2007 and is intended to increase transparency and participation, and thereby delivering improvements to the planning process on nationally significant infrastructure including new nuclear power stations. See paragraph 7 for further details.
- 4.5 On 10 January 2008, the Government's response to its nuclear consultation, in the form of a white paper, was published alongside the Energy Bill, setting out a range of measures to address the twin challenges of tackling climate change and securing energy supplies. As part of this bill, energy companies were invited to bring forward plans to build and operate new nuclear power stations as part of the United Kingdom's strategy for a secure, diverse and low carbon energy mix. The Directgov report 'Government invites new nuclear power into the energy mix', (appendix B) provides a resume of the Government plans which formed part of its nuclear consultation. For further details go to http://www.direct.gov.uk/en/NI1/Newsroom/DG_072058
- 4.6 The Government is intending to publish a consultation on draft siting criteria later in 2008 that will be followed by an invitation for site nominations. The list of nominations will be consulted upon in early 2009.
- 4.7 The White Paper enables energy companies to fully fund the building, running, decommissioning and waste management of new nuclear power stations on the basis that these stations can help the United Kingdom meet its objectives on climate change and energy security. Energy companies have made it known that their preferred sites for new power stations would be next to those already in existence, and this would include Bradwell in the East of England.
- 4.8 On 12 June 2008, John Hutton MP, Secretary of State for Business, Enterprise and Regulatory Reform confirmed the Government's position in regards to the future of nuclear power in Britain. The speech by Mr. Hutton 'New Nuclear Build: Government Action' can be seen in Appendix C. For details of this speech go to <http://www.berr.uk/pressroom/speeches/page46589.html>
- 4.9 Whilst a BBC News report on 14 July 2008 'Nuclear list not yet finalised' (Appendix D, see further details at <http://news.bbc.co.uk/1/hi/uk/7504795.stm>) says the Government have denied that a list of sites for new nuclear power stations has already been drawn up, a local BBC News report on 11 July 2008 'Site earmarked for nuclear plants' (Appendix E, or refer to <http://news.bbc.co.uk/1/hi/england/somerset/7501901.stm> for further details) has British Energy, the owners of land adjacent to the existing Nuclear Power Station confirming this is land they would propose to use for new power stations. British Energy on 22 July 2008 confirmed that Bradwell, like the other current Nuclear Power Station sites, was a good potential site for a new nuclear power station (see Appendix F, or refer to <http://www.british-energy.com/article.php?article=248> for further details).
- 4.10 Leading energy analysts Jackson Consulting (UK) Limited produced a report in 2006 "Siting New Nuclear Power Stations: Availability and Options for Government". This report, commissioned by the Department of Trade and Industry formed part of the Government's preparations for their Energy Review Report. In summary, the report gives details of historic policy and practice for the siting of nuclear power stations and

makes some suggestions as to which issues may be relevant in considering the siting of any new nuclear build and the factors affecting site availability with options for action. The consultants say that existing coal and / or gas-fired conventional power stations should be considered for new nuclear sites as well as the development of stations at completely new Greenfield sites (the report says whilst most existing reactors are on the coast, it would be possible to build new ones inland, though there would be the need for vast cooling towers as used by conventional coal and gas-fired generating stations).

The report also says ease of connection to the national grid is the main factor in determining a site's suitability, that siting a nuclear power station close to areas of demand reduces the need for long-distance power transfers that in turn reduce losses from the electricity grid, improving efficiency of the network and reducing supply costs. The report can be seen in Appendix P, or visit <http://www.jacksonconsult.com/article.html?id=78>

- 4.11 It has been said that if the Government is not clear in terms of an overall energy policy, and the process of new build power stations is bogged down by multiple planning inquiries, it could leave the country vulnerable in terms of the required future energy production.
- 4.12 Professor Steve Thomas is a researcher in energy policy and writes on the economics and policy towards nuclear power, liberalisation and privatisation of the electricity and gas industries and trade policy on network energy industries. Refer to the article in the Guardian on 12 June 2008 "This nuclear agenda is losing power" by Professor Steve Thomas ([Http://www.guardian.co.uk/commentisfree/2008/jun/12/nuclearpower.nuclear](http://www.guardian.co.uk/commentisfree/2008/jun/12/nuclearpower.nuclear)). See Appendix H for details. Professor Thomas will be present at the meeting on 23 September, talks about the potential cost of nuclear energy and the degree of uncertainty about the policy and the lengthy timescale of implementation.
- 4.13 Dr William Nuttall, a University Senior Lecturer in Technology Policy will also be present at the meeting on 23 September 2008. Dr. Nuttall's research centres upon issues concerning energy technologies and public policy. A major area of activity relates to nuclear energy, the nuclear fuel cycle and possibilities for advanced nuclear energy technologies.

5. New Nuclear Power Stations

The roles of the Health and Safety Executive and the Environment Agency

- 5.1 The Nuclear Installations Inspectorate (NII) of the Health and Safety Executive (HSE) grants licences to allow the operation of nuclear power stations, but before a licence is granted, the HSE must be satisfied about the safety aspects of the design, manufacture, construction, commissioning, operation, maintenance and decommissioning of the installation, and the management of nuclear radioactive material on the site.
- 5.2 The Environment Agency regulates radioactive waste disposals, including discharges, abstraction from, and discharges to controlled waters, including rivers, estuaries, the sea and groundwaters. The Agency also regulates assessment and where necessary clean-up of contaminated land, disposal of conventional waste, and certain flood risk management matters.

- 5.3 Whilst the NII and Environment Agency have independent responsibilities, they recognise the benefits of close working arrangements to align their processes and regulatory positions, and have set up a Joint Programme Coordination Team to this aim.
- 5.4 A Joint Programme Office has also been set up to administer the Generic Design Assessment Process (GDA). This process allows the safety, security and environmental implications of new power station design to be assessed.
- 5.5 Representatives from the HSE Nuclear Installations Inspectorate and the Environment Agency will be present at the meeting on 23 September.
- 5.6 A statement of intent on the working relationship between the HSE and Environment Agency can be found in appendix M.

Generic Design Assessment Process (GDA)

- 5.7 In March 2008, the HSE and the Environment Agency completed their initial assessment of four nuclear power station designs:
- Atomic Energy of Canada Limited's (AECL) ACR-1000
 - AREVA and Electricite de France's (EDF) UK EPR
 - GE_Hitachi Nuclear Energy's (GEH) ESBWR
 - Westinghouse Electricity Company's (WEC) AP-1000
- 5.8 The regulators concluded, after carrying out their initial assessments of these designs, that they could see no shortcomings at this stage, which would prevent any of the designs from ultimately being constructed on a licensed site in the United Kingdom. It was hoped that prior approval of the station design would enable any public inquiries to focus on truly local issues, thereby avoiding the very protracted processes which have occurred in the past. Maldon District Council will, like Colchester be a consultee on the planning process, potentially to the new infrastructure Planning Commission (IPC), see section 7.12 – 7.15 for further comment.
- 5.9 Atomic Energy of Canada Limited (AECL) confirmed to the Government in March 2008 their intention to withdraw their ACR-1000 reactor design from participation in the next steps of GDA. The three remaining designs will be taken forward to the next stage of GDA.
- 5.10 The HSE and Environment Agency announced in June 2008, their intention to commence the next stage of GDA, referred to by the HSE at Step 3.
- 5.11 Published guidance on new nuclear power station designs can be found on www.hse.gov.uk
- 5.12 Professor Robin Grimes research is into the future of nuclear fuel. Professor Grime's primary research interest is the application and development of computer simulation techniques to predict structural and dynamic properties of inorganic materials, with particular interest in radiation damage, nuclear fuels and waste form behaviour. Professor Grimes will be present at the meeting on 23 September 2008.
- 5.13 Professor Andrew Blowers taught at Newcastle Polytechnic, Kingston University and the Open University. Professor Blower's expertise lies primarily in the social, political and

ethical aspects of radioactive waste for which he has written books, chapters and pages, and which is a fundamental issue for the debate on new build nuclear power stations. Professor Blowers will be present at the meeting on 23 September 2008.

6. Risk, Health and Safety in the Nuclear Industry

Nuclear Installations Inspectorate (NII)

- 6.1 The Nuclear Directorate (ND) sets out in the conditions attached to a site licence the general safety requirements to deal with the risks on a nuclear site. The ND seeks to improve safety standards which it does through its licensing powers by assessing safety cases and inspecting sites for licence compliance.
- 6.2 The ND Office for Civil Nuclear Security (OCNS) is the security regulator for the United Kingdom's civil nuclear industry and is responsible for approving security arrangements within the industry and enforcing compliance.
- 6.3 Although ND has most of the expertise it needs to form its own judgements, it uses consultants and has a nuclear safety studies programme geared to its own needs for independent specialist advice. A wide range of specialist consultants from universities, engineering firms and national organisations such as the British Geological Survey, are used to help with the assessment and inspection work, about faults and operating experiences.
- 6.4 The NII have designated for every licensed installation an area for which detailed contingency plans should be produced to allow for a rapid response to an emergency. The Detailed Emergency Planning Zone (DEPZ) for Bradwell Power Station has been set at 2.4 km (1.5 miles). Maldon District Council has prepared an Emergency Plan which sets out to deal with the consequences of a partial or total evacuation of the DEPZ.

Discharges from the nuclear industry – the Environment Agency

- 6.5 Radioactive discharges are a by-product of the nuclear industry. The Environment Agency is responsible for regulating discharges and monitoring the environment. Checks are made by the Operator, the Environment Agency and Food Standards Agency on radioactive dose rates and levels of radionuclides around nuclear sites.
- 6.6 Radioactive discharges consist of the principal radionuclides: tritium (hydrogen-3), sulphur-35, carbon 14 and krypton-85, together with a range of other radionuclides in much lower abundance. These contribute slightly to the total radiation dose that the public is exposed to. Concentrations of many radionuclides in the environment have declined, due to reductions in deposition following the atomic bomb tests in the 1950s.
- 6.7 Electricity produced nationally by nuclear power has increased slightly since 1983 to 2006, whilst the total electricity produced nationally has increased by around 20%. Radioactive discharges from nuclear power production over this period has not changed much but discharges from the nuclear industry overall has fallen substantially. This resulted from changed practices at the major sites, together with improved techniques for treatment of discharges, and increased public and regulatory pressure.
- 6.8 Further information on the work of the Environment Agency in regards to radioactive waste can be found on the Agency's website.

Dealing with nuclear/radioactive waste

- 6.9 The advantage of Nuclear Power Stations is they are during operation virtually carbon free compared to those burning fossil fuels. However, as well as concerns over safety, the major problem is the disposal of nuclear waste.
- 6.10 Whilst the government criteria for choosing sites to dispose of the United Kingdom's radioactive waste are not overwhelmingly supported, there is a general sense of agreement that the safest form of disposal is burial deep underground. The transportation of radioactive waste is an issue not addressed in this report but which may be considered as an area of work for future discussion.
- 6.11 The Committee on Radioactive Waste Management (CoRWM) provide independent scrutiny and advice on the UK's management of its solid radioactive waste, especially plans for geological disposal of higher activity waste. Appendix R gives a brief insight into the role of CoRWM, Radioactive Waste and its Management, and the current work that includes Government Managing Radioactive Waste Safely (MRWS) Programme. Please refer to <http://www.corwm.org.uk/default.aspx> for more detail.
- 6.12 A report on the Government response to the Radioactive Waste Management update by the House of Lords Science and Technology Committee (published in February 2008) can be seen in the background papers (iii).

Health Protection Agency (HPA)

- 6.13 The Health Protection Agency's role is to provide an integrated approach to protecting the United Kingdom public health through the provision of support and advice to the NHS, local authorities, emergency services, other Arms Length Bodies, the Department of Health and the Devolved Administrations. The Agency was established as a special health authority (SpHA) in 2003.
- 6.14 The HPA Centre for Radiation, Chemical and Environmental Hazards comprises the Radiation Protection Division (formerly the National Radiological Protection Board) and the Chemical Hazards and Poisons Division.
- 6.15 The Centre for Radiation, Chemical and Environmental Hazards Division carries out the Health Protection Agency's work on ionising and non-ionising radiations. It undertakes research to advance knowledge about protection from the risks of these radiations, provides laboratory and technical services, runs training courses, provides expert information and has a significant advisory role in the United Kingdom.
- 6.16 As the United Kingdom's point of reference for many aspects of radiation safety, the Radiation Protection Division of the HPA represents an in-depth resource with respect to the provision of radiation safety training.
- 6.17 Local and Regional Health Protection Agency services work alongside the NHS providing specialist support in emergency planning.
- 6.18 Emergencies and incidents, includes acts of terrorism, and involving chemical, biological and radioactive materials have the potential to cause disruption for communities on a large scale. Rapid preparation and emergency planning are essential components in

minimising the impact on the public, and requires the continual development of plans and expertise.

- 6.19 The Centre for Emergency Preparedness and Response provides a central source of authoritative scientific/medical information and other specialist advice on both the planning and operational responses to major incidents and wider public health or other emergencies.
- 6.20 The Emergency Response Division carries out exercises to test emergency preparedness in the health service community. These exercises test and improve the current emergency health plans, helping to ensure that a wide cross-section of organisations can respond in a rapid and co-ordinated way to any deliberate release of chemical, biological or and radioactive materials.

Potential for major incidents involving radioactive waste

- 6.21 If a major incident occurred on or close to West Mersea Island the appropriate action agreed could be an immediate evacuation of the island. In such circumstances this would be co-ordinated and managed by the Police with support from Colchester and Essex County Council Emergency Planning Team (see following paragraphs on Emergency Planning). Such an evacuation could be hindered by coastal tide, given that the only exit by road from the island is via the B1025 causeway.
- 6.22 It should be remembered that an evacuation need not be directly linked to an incident at Bradwell Power Station, though it would be reassuring to Members and residents of the island to know what plans are in place should such an evacuation be necessary.
- 6.23 Such an incident may not require an evacuation. A response to an incident at Bradwell Power Station may be to breathe clean air by remaining inside your home with all windows and external doors closed.

Emergency Planning

- 6.24 The Government's Emergency Planning legislation and Guidance, such as the Civil Contingencies Act (CCA), Emergency Preparedness guide to CCA and Emergency Response and Recovery guide to CCA, cascade down to various Government offices in accordance to the type of emergency being dealt with. From the Government office, the appropriate plans and guidance then feed into the Local Resilience Forum / Essex County Council.
- 6.25 Essex County Council provide Combined Operational Procedures for Essex (COPE) that deal with emergency plans for Essex Police, Essex Fire and Rescue, East of England Ambulance Services and a Civil Contingency Plan. Within these plans are numerous plans and guidance including a Flood Plan and a Bradwell Emergency Guidebook.
- 6.26 One of Essex County Councils Emergency Plans is for the Bradwell Off-Site Emergency Plan, which is site specific, and details response and operational arrangements in respect of an incident resulting in the release of radioactive pollutants at the site and the possible impact off-site.
- 6.27 As previously mentioned the Detailed Emergency Planning Zone (DEPZ) for Bradwell Power Station has been set at 2.4 km (1.5 miles). The nearest point within the Borough

of Colchester is West Mersea, which is just outside the 1.5 mile zone. Maldon District Council has prepared an Emergency Plan which sets out to deal with the consequences of a partial or total evacuation of the DEPZ. Colchester General Hospital is one of three designated primary hospitals for reception and treatment of casualties from a nuclear incident at Bradwell.

- 6.28 Colchester Borough Council's Emergency Response Plan consists of the generic response procedure the Council will deploy to any major emergency, and where appropriate identifies specific hazards and sets out unique response procedures including those for major incidents such as Bradwell Power Station (release of radioactive pollution), Flooding (tidal flooding, the isolation of mainland and island communities, fluvial flooding and contaminated water) and terrorist attack. There is no specific Emergency Plan for West Mersea Island.
- 6.29 The Bradwell off-site plan is co-ordinated by Essex County Council Emergency Planning Unit. Colchester Borough Council has no direct responsibilities under the plan although assistance with the general welfare and support of evacuees may be requested.
- 6.30 The County's Emergency Planning Officers are in regular contact with District Councils, Essex Association of Local Council's and Parish Councils, regularly attending forums to inform and develop Emergency Planning procedures.
- 6.31 All the documents for Emergency Planning are retained by the Colchester and Essex Joint Emergency Planning Officer and are available for viewing on request. A summary of the work of Emergency Planning can be seen on the Council's website.
- 6.32 The Colchester and Essex Joint Emergency Planning Officer will be present at the meeting on 23 September 2008.

National Risk Register

- 6.33 The Government published a National Risk Register on 8 August 2008. The document weighs up the likelihood of threats and their potential impacts.
- 6.34 Whilst the register is not intended to rank dangers in any kind of priority, the gravest national threat was a flu pandemic as it could claim up to 750,000 lives, though this was not as likely as a terrorist attack.
- 6.35 Coastal Flooding and attacks on critical infrastructure were considered more likely to occur than a flu pandemic, though the relative impact of these was smaller.
- 6.36 One of the Government priorities arising from this publication for coastal flooding was to ensure improving overall emergency response capability to respond to flood events, including arrangements to protect critical infrastructure, and ensuring where new development is necessary in areas at risk of flooding, appropriate measures are taken to minimise the risk.
- 6.37 The documents relating to the National Risk Register can be found at http://www.cabinetoffice.gov.uk/reports/national_risk_register.aspx and are included as background papers.

7. The potential of Bradwell as the site for a nuclear power station

Major flooding

- 7.1 Construction of the Bradwell Nuclear Power Station began in 1957 and electricity generation started in 1962. The location was deliberately chosen as the land had minimal agricultural value, offered easy access, was geologically sound and had an unlimited source of cooling water from the North Sea (ref. Wikipedia).
- 7.2 The site began construction 3-4 years after the 1953 east coast floods and was purposely built to withstand a reoccurrence of this flooding disaster. I am led to believe that the level of construction commenced at 6 feet above the water level experienced at Bradwell during the 1953 floods, double the normal tolerance.
- 7.3 Given that any new power station built will be given the same tolerance levels or better, should this area be subject to a flood on the scale at or above that experienced in 1953 this could, like in 1953 constitute a national disaster.
- 7.4 Certain areas of the Borough of Colchester are at risk from tidal flooding due to their low lying terrain. In the event of West Mersea Island being at threat of flooding, like any other area at threat, the Environment Agency will immediately issue a warning. In such cases the Council's First Call Officer for Emergency Planning will immediately discuss the matter with the Chief Executive and the appropriate action agreed.
- 7.5 Scientists from the Flood Hazard Research Centre examined four existing sites that are considered likely to be earmarked as possible locations for new build nuclear power stations, including Bradwell. These sites are at risk from significant sea-level rises and storm surges in the future. The Jackson Consulting (UK) Limited report "Siting New Nuclear Power Stations: Availability and Options for Government", previously mentioned in paragraph 4.10, says there remains a drawback in that most nuclear power stations are sited in low lying coastal locations which may be at risk from coastal erosion and serious flooding as a result of climate change, going on to say that the UK radioactive waste agency Nirex published a research report in 2005 indicating that many coastal nuclear sites were vulnerable to the effects of sea level rise from climate change, particularly storm surges which can cause severe but temporary coastal flooding and accelerated coastal erosion.
- 7.6 The Flood Hazard Research Centre report concludes that defending the sites from sea water will mean they are "likely to become economically unsustainable" and they "cannot be considered as suitable locations for new reactors". Flooding of the area around Bradwell will "not only become likelier, but will potentially be more severe" in one scenario, while in another the "power station site could potentially become an island in the longer term". It also concluded that "it may become unsustainable to maintain the current power station site" while a large increase in sea levels "would result in total inundation of the nuclear site and the surrounding area". For further details on this report please go to <http://www.fhrc.mdx.ac.uk/> or <http://www.greenpeace.org.uk/media/press-releases/scientists-map-flooding-risk-to-nuclear-sites>

Earthquakes / fault lines

- 7.7 Bradwell, which is on an earthquake fault line, was the focus of an earthquake in 1884.

- 7.8 Recent earthquakes in England are small and infrequent, happening on a fault that was active hundreds of millions of years ago. Faults of similarly ancient lineage could be the sites of future tremors.
- 7.9 People over most of England and Wales recently felt an earthquake of about magnitude 5.1 on the Richter scale, which had its focus about 14 kilometres below Clun, a village south of the town of Bishop's Castle. It caused minor damage to masonry buildings as far away as Shrewsbury, 30 kilometres to the northeast. The earthquake was a reminder of seismic phenomena. The Welsh Borders suffer frequent earthquakes by British standards. Over the last century, there have been sizeable shocks near Shrewsbury in 1932, near Ludlow in 1926 and near Hereford in 1896 and 1924. But locating these old earthquakes depends on assessing contemporary records of damage and local people's responses. The focus of a shock was rarely under the town where it was most fully reported. The information is frustratingly imprecise, often pinpointing quakes only to within a circle about 20 kilometres across.
- 7.10 A recent earthquake at Kashiwazaki, Japan caused the Kashiwazaki nuclear power plant to be closed for inspections. Officials at the nuclear power plant reported 50 malfunctions caused by the strong earthquake near the town of Kashiwazaki. In addition to a fire, there were leaks of radioactive water and gas and drums containing nuclear waste burst open. The company running the plant confirmed that none of the leaks are harmful to people or the environment. The magnitude, beyond anything experienced in England or Wales was a 6.8 earthquake that killed nine people and flattened hundreds of homes in the coastal town of Kashiwazaki in Niigata prefecture. Following extensive structural damage, many companies remain closed and large parts of Kashiwazaki remain without power and water.
- 7.11 The Japanese government requires nuclear reactors to be able to withstand earthquakes of up to a magnitude of 6.5, weaker than this earthquake.

Planning proposals for a new nuclear power station at Bradwell

- 7.12 Maldon District Council confirmed on 17 July that there had been no formal planning proposals, with no likelihood of any in the foreseeable future. Maldon District Council will, like Colchester be a consultee on the planning process, potentially to the new infrastructure Planning Commission (IPC).
- 7.13 The Government is expected to take action to reduce the regulatory uncertainty and risk associated in investing in new nuclear power. The Government's Planning Bill proposes to speed up decisions on big infrastructure projects such as power stations and airports. Under new amendments to the Bill just agreed, National Policy Statements will be drawn up from which the IPC determines a specific project.
- 7.14 The GDA process will need to be completed before an application is made to build a new design nuclear power station at a particular site. Part of the planning application will be to demonstrate that the new build incorporates appropriate flood defences.
- 7.15 Many people feel these new process will limit the voice of local people and Local Government.

British Energy

- 7.16 The British Energy Group plc is the United Kingdom's largest producer of electricity, producing approximately one sixth of the nation's electricity.
- 7.17 British Energy continues to prepare potential sites for replacement nuclear power stations. British Energy comment that all their existing sites have potential for replacement nuclear power stations, and at all locations there is suitable land for further development. This work ensures the sites are well placed for future consideration.
- 7.18 A review conducted by Halcrow Group and commissioned by British Energy was recently undertaken to review the engineering needs to protect the eight nuclear sites across the United Kingdom from the possible longer term impact of climate change. The key conclusion is that flood defence and coast protection measures can be deployed to make replacement build a feasible option at all sites, and that the sites can be made robust against climate change impacts for the expected lifetimes of the replacement stations.
- 7.19 British Energy is to commission expert studies that will be needed to underpin comprehensive and robust Environmental Impact Assessments for any replacement build.
- 7.20 Further information on the work of British Energy can be found at www.british-energy.com. A representative from British Energy will be present at the meeting on 23 September 2008.
- 7.21 British Energy, Centrica and Electricite de France (EDF) have recently been involved in merger talks. British Energy is thirty five percent owned by the Government. www.telegraph.co.uk/earth/main.jhtml?xml=/earth/2008/07/13/eanuclear113.xml
- 7.22 It is possible that EDF could take a stake in Centrica's wind farms and other assets as part of a deal to bring the United Kingdom into a planned £11 billion plus takeover of British Energy.
- 7.23 British Energy has produced a short report for the panel on their current and future work and plans. See appendix N for details.

8. The potential of alternative renewable fuels and systems

- 8.1 The Government's Energy Bill includes measures to strengthen the renewables obligation with the aim of driving greater and more rapid deployment of renewables in the United Kingdom and with the intention of encouraging a broader mix of renewable energy into the market.
- 8.2 The BBC 'Guide to UK nuclear power' (appendix J) offers a simple guide to the breakdown of the United Kingdom's major current and likely future energy sources. The following paragraphs and appendices have been drawn up to bring to the attention of members the work of other people and companies in the development of other forms of energy.
- 8.3 The Government's target for producing 20% of renewable energy by 2020 will rely heavily on energy generated from wind turbines, however progress appears limited with questions being asked about implementation costs and the expected energy levels generated by this method.

- 8.4 The East of England Regional Assembly commissioned a report by Ove Arup and Partners to in brief, define the resources potential of the region for electricity generation from renewable energy technologies, give spatial expression to the current 2020 target for renewable energy production in the region and advise on the likely trajectories for renewable heat and electricity beyond 2020. The study commenced in March 2007 and the final report delivered at the end of February 2008. The report can be viewed at <http://www.eera.gov.uk/category.asp?cat=688>. It was calculated that in December 2007 regional renewable electricity production was some 80% of the 2010 target
- 8.5 In response to the 2006 Energy Review, an independent report from Dr Mark Barrett of the University College London 'A Renewable Electricity System for the UK' was published in April 2006. The report demonstrates the technical feasibility of a 95% renewable electricity system. A copy of this report can be found in the Background Papers. See www.cbcs.ucl.ac.uk/projects/EnergyReview.htm.
- 8.6 The Government has laid down targets for energy companies to build 33 gigawatts of offshore wind energy by 2020. Three years ago, the industry estimated meeting this figure would mean investment of about £40 billion. The figure is currently thought to be in the region of £80 billion. There are numerous press releases and reports expounding the benefits of renewable energy and systems as a feasible alternative to nuclear energy.
- 8.7 A report by the Independent on Sunday on 1 June 2008, not only expounds the benefits of renewable energy, but also argues that a lack of a coherent energy policy has resulted in the United Kingdom falling behind its European neighbours in developing renewable energy. Whatever the pros and cons are of any form of energy, the article (appendix K) illustrates how advanced Germany is in developing wind energy and microgeneration. Articles in the Independent and Guardian (Appendix L), 'Huge increase in wind power planned', 'A revolution on the horizon', 'we must end our oil dependency, say Chancellor' and 'Microgeneration could rival nuclear power' confirms the Country's energy policy is shifting to producing at least a third of the United Kingdom electricity by renewable sources, compared to under 5% today, whilst becoming less dependent on oil.
- 8.8 Please refer to the following for further details;
<http://www.independent.co.uk/news/uk/politics/huge-increase-in-wind-power-planned>
<http://www.independent.co.uk/environment/green-living/a-revolution-on-the-horizon>
<http://www.guardian.co.uk/business/2008/jul/03/oil.alistairdarling>

9. A way forward

- 9.1 In light of the Council's motion, and following this review;
- 9.2 Does the panel think sufficient consideration has been given to all the key issues associated with civil nuclear power including, health and safety, the environment and security to enable a weighing of the economic and other benefits against the potential detriments, and to draw any conclusions?
- 9.2.1 Some of the issues that need to be considered are;
- Is there clear enough recognition that the Government is committed to a nuclear energy programme for the United Kingdom, given that the costs of this

programme could potentially divert resources from the generation of renewable energy and have a greater negative impact on climate change?

- The benefit of generating nuclear energy is that nuclear reactors do not produce greenhouse gases, given that greenhouse gases are a bi-product of the construction of any energy producing structure.
- Does there need to be a new nuclear power station at Bradwell, given that there appears to be a greater number of sites available than will be required.
- Given the locality of all potential sites, is the site at Bradwell suitable for a new nuclear power station?
- Satisfaction with the safety of the nuclear power industry and the management of radioactive waste.
- Satisfaction with the security of nuclear power stations in the event of a major external incident.
- Satisfaction with the health and safety issues at a nuclear power station in the event of a major internal nuclear incident or accident or natural disaster.

9.3 Having given some consideration to the above points during the course of this review, does the panel consider it appropriate to recommend that the Council sends a letter to the appropriate individuals and bodies, prior to any firm proposals, acknowledging this review and the subsequent thoughts of members?

9.4 Would the panel give further consideration to the following;

Given the location of Bradwell Nuclear Power Station, and if Council is of the opinion that a further meeting(s) should be undertaken to extend this review, would it be appropriate to also recommend to Council that other neighbouring authorities such as Maldon, Tendring and Essex County should be encouraged to participate in a joint scrutiny approach to the inquiry?

Background papers

- i) **The Future of Nuclear Power – dti report on the role of nuclear power in a low carbon UK economy**
- ii) **Nuclear Consultation – Public Trust in Government – report from the Nuclear Consultation Working Group**
- iii) **Radioactive Waste Management Update – House of Lords Science and Technology Committee**
- iv) **A Renewable Electricity System for the UK, a response to the 2006 Energy Review by Dr Mark Barrett of the University College London**
- v) **National Risk Register**

