

Agenda

Cabinet

Thursday, 19 November 2015, 10.00 am
County Hall, Worcester

This document can be made available in other formats (large print, audio tape, computer disk and Braille) on request from Democratic Services on telephone number 01905 728713 or by emailing democraticservices@worcestershire.gov.uk

If you can not understand the contents of this document and do not have access to anyone who can translate it for you, please contact 01905 765765 for help.

বাংলা। আপনি যদি এই দলিলের বিষয়বস্তু বুঝতে না পারেন এবং আপনার জন্য অনুবাদ করার মত পরিচিত কেউ না থাকলে, অনুগ্রহ করে সাহায্যের জন্য 01905 765765 নম্বরে যোগাযোগ করুন। (Bengali)

廣東話。如果您對本文檔內容有任何不解之處並且沒有人能夠對此問題做出解釋，請撥打 01905 765765 尋求幫助。 (Cantonese)

普通话。如果您对本文件内容有任何不解之处并且没有人能够对此问题做出解释，请拨打 01905 765765 寻求帮助。 (Mandarin)

Polski jeżeli nie rozumieją Państwo treści tego dokumentu i nie znają nikogo, kto mógłby go dla Państwa przetłumaczyć, proszę zadzwonić pod numer 01905 765765 w celu uzyskania pomocy. (Polish)

Português. Se não conseguir compreender o conteúdo deste documento e não conhecer ninguém que lho possa traduzir, contacte o 01905 765765 para obter assistência. (Portuguese)

Español. Si no comprende el contenido de este documento ni conoce a nadie que pueda traducírselo, puede solicitar ayuda llamando al teléfono 01905 765765. (Spanish)

Türkçe. Bu dokümanın içeriğini anlayamazsanız veya dokümanı sizin için tercüme edebilecek birisine ulaşamıyorsanız, lütfen yardım için 01905 765765 numaralı telefonu arayınız. (Turkish)

اردو۔ اگر آپ اس دستاویز کی مشمولات کو سمجھنے سے قاصر ہیں اور کسی ایسے شخص تک آپ کی رسائی نہیں ہے جو آپ کے لئے اس کا ترجمہ کر سکے تو، براہ کرم مدد کے لئے 01905 765765 پر رابطہ کریں۔ (Urdu)

کوردی سۆزانی، ننگێر ناتوانی تێبگهی له ناوهرۆکی نهم بێلگهی و دهستت به هیچ کس ناگات که وهیگهریتنوه بۆت، تکلیه تملظون بکه بۆ ژمارهی 01905 765765 و داوای رینۆونی بکه. (Kurdish)

ਪੰਜਾਬੀ। ਜੇ ਤੁਸੀਂ ਇਸ ਦਸਤਾਵੇਜ਼ ਦਾ ਮਸ਼ਹੂਰ ਸਮਝ ਨਹੀਂ ਸਕਦੇ ਅਤੇ ਕਿਸੇ ਅਜਿਹੇ ਵਿਅਕਤੀ ਤੱਕ ਪਹੁੰਚ ਨਹੀਂ ਹੈ, ਜੋ ਇਸਦਾ ਤਰਜਮਾ ਲਈ ਅਨੁਭਵ ਕਰ ਸਕੇ, ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਮਦਦ ਲਈ 01905 765765 'ਤੇ ਫ਼ੋਨ ਕਰੋ। (Punjabi)

DISCLOSING INTERESTS

There are now 2 types of interests:
'Disclosable pecuniary interests' and **'other disclosable interests'**

WHAT IS A 'DISCLOSABLE PECUNIARY INTEREST' (DPI)?

- Any **employment**, office, trade or vocation carried on for profit or gain
- **Sponsorship** by a 3rd party of your member or election expenses
- Any **contract** for goods, services or works between the Council and you, a firm where you are a partner/director, or company in which you hold shares
- Interests in **land** in Worcestershire (including licence to occupy for a month or longer)
- **Shares** etc (with either a total nominal value above £25,000 or 1% of the total issued share capital) in companies with a place of business or land in Worcestershire.

NB Your DPIs include the interests of your spouse/partner as well as you

WHAT MUST I DO WITH A DPI?

- **Register** it within 28 days and
- **Declare** it where you have a DPI in a matter at a particular meeting
 - you must **not participate** and you **must withdraw**.

NB It is a criminal offence to participate in matters in which you have a DPI

WHAT ABOUT 'OTHER DISCLOSABLE INTERESTS'?

- No need to register them but
- You must **declare** them at a particular meeting where:
You/your family/person or body with whom you are associated have a **pecuniary interest** in or **close connection** with the matter under discussion.

WHAT ABOUT MEMBERSHIP OF ANOTHER AUTHORITY OR PUBLIC BODY?

You will not normally even need to declare this as an interest. The only exception is where the conflict of interest is so significant it is seen as likely to prejudice your judgement of the public interest.

DO I HAVE TO WITHDRAW IF I HAVE A DISCLOSABLE INTEREST WHICH ISN'T A DPI?

Not normally. You must withdraw only if it:

- affects your **pecuniary interests OR** relates to a **planning or regulatory** matter
- **AND** it is seen as likely to **prejudice your judgement** of the public interest.

DON'T FORGET

- If you have a disclosable interest at a meeting you must **disclose both its existence and nature** – 'as noted/recorded' is insufficient
- **Declarations must relate to specific business** on the agenda
 - General scattergun declarations are not needed and achieve little
- Breaches of most of the **DPI provisions** are now **criminal offences** which may be referred to the police which can on conviction by a court lead to fines up to £5,000 and disqualification up to 5 years
- Formal **dispensation** in respect of interests can be sought in appropriate cases.

Cabinet

Thursday, 19 November 2015, 10.00 am, County Hall, Worcester

Membership: Mr A I Hardman (Chairman), Mr M L Bayliss, Mr A N Blagg,
Mrs S L Blagg, Mr J P Campion, Mr S E Geraghty, Mr M J Hart,
Mrs L C Hodgson and Mr J H Smith

Agenda

Item No	Subject	Page No
7	West Midlands Rail Devolution – Draft Articles of Association for West Midlands Rail Limited	1 - 26
9	Worcestershire County Council Renewable Energy Strategy and Renewable Energy Research Paper	27 - 66

NOTES

- **Webcasting**

Members of the Cabinet are reminded that meetings of the Cabinet are Webcast on the Internet and will be stored electronically and accessible through the Council's Website. Members of the public are informed that if they attend this meeting their images and speech may be captured by the recording equipment used for the Webcast and may also be stored electronically and accessible through the Council's Website.

Agenda produced and published by Simon Mallinson, Head of Legal and Democratic Services, County Hall, Spetchley Road, Worcester WR5 2NP

To obtain further information or a copy of this agenda contact Nichola Garner, Committee & Appellate Officer on Worcester (01905) 766626 or Kidderminster (01562) 822511 (Ext 6626) or minicom: Worcester (01905) 766399 email: ngarner2@worcestershire.gov.uk

All the above reports and supporting information can be accessed via the Council's website.

Date of Issue: Tuesday, 10 November 2015

This page is intentionally left blank

THE COMPANIES ACT 2006

PRIVATE COMPANY LIMITED BY GUARANTEE

ARTICLES OF ASSOCIATION

OF

WEST MIDLANDS RAIL LIMITED (the "Company")

(Adopted by special resolution passed on [INSERT DATE])

CONTENTS

PART 1 – OBJECTS, POWERS AND INTRODUCTORY PROVISIONS	2
1 Interpretation.....	2
2 Objects.....	4
3 Powers.....	4
4 Income.....	5
5 Winding Up.....	5
6 Guarantee.....	6
PART 2 – DIRECTORS' MEETINGS AND DECISION MAKING.....	6
7 Directors' General Authority.....	6
8 Members' Reserve Power And Approval Rights.....	6
9 Directors May Delegate.....	6
10 Committees.....	7
11 Attendance Of Non-Directors At Directors' Meetings.....	7
12 Directors To Take Decisions Collectively.....	7
13 Directors' Written Resolutions And Unanimous Decisions.....	7
14 Calling A Directors' Meeting.....	8
15 Participation In Directors' Meetings.....	9
16 Quorum For Directors' Meetings.....	9
17 Chairing Of Directors' Meetings.....	9
18 Directors' Conflicts Of Interest.....	10
19 Records Of Decisions To Be Kept.....	12
20 Directors' Discretion To Make Further Rules.....	13
PART 3 - APPOINTMENT OF DIRECTORS AND COMPANY SECRETARY	13
21 Number Of Directors.....	13
22 Appointment And Removal Of Directors And Substitute Directors.....	13
23 Termination Of Directors' Appointments.....	13
24 Rights And Responsibilities Of Substitute Directors.....	14
25 Directors' Remuneration.....	15
26 Directors' Expenses.....	15
27 Secretary.....	16
PART 4 – MEMBERSHIP.....	16
28 Membership Categories And Admission Of Members.....	16
29 Admission Of Members.....	16
30 Termination Of Membership And Change Of Membership Status.....	17
31 Expulsion Of Members.....	17
PART 5 – MEMBER'S MEETINGS.....	18
32 Calling Of General Meetings.....	18
33 Attendance And Speaking At General Meetings.....	19
34 Quorum For General Meetings.....	19
35 Chairing General Meetings.....	19
36 Attendance And Speaking By Directors And Non-Members.....	19
37 Adjournment.....	20
38 Voting At General Meetings.....	20

39	Poll Votes.....	21
40	Authorised Representatives Of Members	21
41	Proxies	21
42	Amendments To Resolutions	22
PART 6	– ADMINISTRATIVE ARRANGEMENTS	23
43	Means Of Communication To Be Used.....	23
44	Company Seal	23
45	Application of the Local Authorities (Companies) Order 1995	24
46	Indemnity And Insurance.....	24

PART 1 – OBJECTS, POWERS AND INTRODUCTORY PROVISIONS

1 Interpretation

1.1 In these Articles, unless the context otherwise requires:

Act: means the Companies Act 2006;

Articles: means the Company's articles of association for the time being in force;

Associate Member: has the meaning given in article 28.1(b);

bankruptcy: includes individual insolvency proceedings in a jurisdiction other than England and Wales or Northern Ireland which have an effect similar to that of bankruptcy;

Business Day: means any day (other than a Saturday, Sunday or public holiday in the United Kingdom) on which clearing banks in the City of London are generally open for business;

Companies Acts: means the Companies Acts (as defined in section 2 of the Act), in so far as they apply to the Company;

Conflict: means a situation in which a Director has or can have, a direct or indirect interest that conflicts or possibly may conflict, with the interests of the Company;

Director: means a director of the Company, and includes any Principal Director and Substitute Director and any other person occupying the position of director of the Company, by whatever name called;

document: includes, unless otherwise specified, any document sent or supplied in electronic form;

electronic form: has the meaning given in section 1168 of the Act;

Eligible Director: means a Director who would be entitled to vote on the matter at a Directors' meeting (but excluding in relation to the authorisation of a Conflict pursuant to article 18, any Director whose vote is not to be counted in respect of the particular matter);

ITA: means the West Midlands Integrated Transport Authority;

local transport authority: has the meaning given in section 108 of the Transport Act 2000;

LTA Member: has the meaning given in article 28.1(a);

Member: means a member of the Company being either an LTA Member or an Associate Member;

Model Articles: means the model articles for private companies limited by guarantee contained in Schedule 2 of the Companies (Model Articles) Regulations 2008 (SI 2008/3229) as amended prior to the date of adoption of these Articles;

Northamptonshire: means the shire county known as Northamptonshire;

Objects: means the objects set out in article 2;

ordinary resolution: has the meaning given in section 282 of the Act;

participate: (in relation to a Directors' meeting) has the meaning given in article 15;

Principal Director: has the meaning given in article 22.1;

proxy notice: has the meaning given in article 41;

special resolution: has the meaning given in section 283 of the Act;

subsidiary: has the meaning given in section 1159 of the Act;

Substitute Director: has the meaning given in article 22.1;

West Midlands: means the West Midlands metropolitan county and the shire counties of Herefordshire, Shropshire, Staffordshire (excluding the area for which Stoke-on-Trent City Council is the local transport authority), Warwickshire and Worcestershire; and

writing: means the representation or reproduction of words, symbols or other information in a visible form by any method or combination of methods, whether sent or supplied in electronic form or otherwise.

- 1.2 Unless the context otherwise requires and save as otherwise specifically provided in these Articles, words and expressions which have particular meanings in the Act shall have the same meanings in these Articles.
- 1.3 Headings in these Articles are used for convenience only and shall not affect the construction or interpretation of these Articles.
- 1.4 A reference in these Articles to an "article" is a reference to the relevant article of these Articles unless expressly provided otherwise.
- 1.5 Unless expressly provided otherwise, a reference to a statute, statutory provision or subordinate legislation is a reference to it as it is in force from time to time, taking account of:
 - (a) any subordinate legislation from time to time made under it; and
 - (b) any amendment or re-enactment (and includes any statute, statutory provision or subordinate legislation which it amends or re-enacts).
- 1.6 Any phrase introduced by the terms "including", "include", "in particular" or any similar expression shall be construed as illustrative and shall not limit the sense of the words preceding those terms.
- 1.7 The Model Articles shall not apply to the Company.

2 Objects

2.1 The Company's objects are restricted to the following:

- (a) to promote the devolution of responsibility for rail passenger services and (where appropriate) associated facilities in the West Midlands and Northamptonshire to local transport authorities or other appropriate local authorities or other bodies within that area (acting through the Company);
- (b) to manage or to assist in managing the performance of rail passenger services operating within the West Midlands and Northamptonshire pursuant to rail franchise agreements or other similar agreements;
- (c) to improve rail passenger services and associated facilities within the West Midlands and Northamptonshire; and
- (d) to develop and oversee the implementation of a long-term strategy for rail passenger services in the West Midlands and Northamptonshire as approved by the Members.

3 Powers

3.1 In pursuance of the Objects, the Company has the power to:

- (a) enter into arrangements and/or agreements with the Secretary of State for Transport in relation to the provision of rail passenger services in the West Midlands and Northamptonshire and adjacent areas pursuant to rail franchises awarded by him or her;
- (b) enter into contracts for the provision of rail passenger services and associated facilities in the West Midlands and Northamptonshire (and outside of that area where associated with the provision of those services and facilities within that area);
- (c) enter into any other contracts to procure or to provide services of any kind (including on behalf of other bodies);
- (d) buy, lease or otherwise acquire and deal with any property real or personal and any rights or privileges of any kind over or in respect of any property real or personal and to improve, manage, develop, construct, repair, sell, lease, mortgage, charge, surrender or dispose of or otherwise deal with all or any part of such property and any and all rights of the Company;
- (e) borrow and raise money in such manner as the Directors shall think fit and secure the repayment of any money borrowed, raised or owing by mortgage, charge, lien or other security on the Company's property and assets;
- (f) invest and deal with the funds of the Company not immediately required for its operations in or upon such investments, securities or property as may be thought fit;
- (g) subscribe for, take, buy or otherwise acquire, hold, sell, deal with and dispose of, place and underwrite shares, stocks, debentures, debenture stocks, bonds, obligations or securities issued or guaranteed by any government or authority in any part of the world;
- (h) lend and advance money or give credit on such terms as may seem expedient and with or without security to customers and others, to enter into guarantees, contracts of indemnity and suretyships of all kinds to receive

money on deposit or loan upon such terms as the Company may approve and to secure or guarantee the payment of any sums of money or the performance of any obligation by any company, firm or person including any holding company or subsidiary;

- (i) lobby, advertise, publish, educate, examine, research and survey in respect of all matters of law, regulation, economics, accounting, governance, politics and/or other issues and to hold meetings, events and other procedures and co-operate with or assist any other body or organisation in each case in such way or by such means as may, in the opinion of the Directors, affect or advance the Objects;
- (j) pay all or any expenses incurred in connection with the promotion, formation and incorporation of the Company and to contract with any person, firm or company to pay the same;
- (k) provide and assist in the provision of money, materials or other help;.
- (l) open and operate bank accounts and other facilities for banking and draw, accept, endorse, issue or execute promissory notes, bills of exchange, cheques and other instruments;
- (m) incorporate subsidiary companies to carry on any trade; and
- (n) do all such other lawful things as are, in the opinion of the Directors, incidental or conducive to the pursuit or to the attainment of any of the Objects.

4 Income

4.1 Subject to article 5, the income and property of the Company shall be applied solely in promoting the Objects.

4.2 Subject to article 5, no dividends or bonus may be paid or capital otherwise returned to the Members, provided that this article 4 shall not prevent any payment by the Company of:

- (a) remuneration or expenses to Directors in accordance with articles 25 and 26;
- (b) reasonable and proper remuneration and/or expenses to any other officer or servant of the Company for any services rendered to the Company or in connection with the exercise of their powers and the discharge of their responsibilities in relation to the Company;
- (c) any interest on money lent by any Member at a reasonable and proper rate;
or
- (d) reasonable and proper rent for premises demised or let by any Member.

5 Winding Up

5.1 On the winding-up or dissolution of the Company, any assets or property that remains available to be distributed or paid, shall be distributed or paid to the Members for the time being in proportion to their voting rights on a poll at general meetings of the Company (disregarding voting rights resulting from the application of article 38.3).

6 Guarantee

- 6.1 The liability of each Member is limited to £1, being the amount that each Member undertakes to contribute to the assets of the Company in the event of its being wound up while he is a Member or within one year after he ceases to be a Member, for:
- (a) payment of the Company's debts and liabilities contracted before he ceases to be a Member;
 - (b) payment of the costs, charges and expenses of the winding up; and
 - (c) adjustment of the rights of the contributories among themselves.

PART 2 – DIRECTORS’ MEETINGS AND DECISION MAKING

7 Directors’ General Authority

- 7.1 Subject to the Articles (including in particular article 8) and to the provisions of the Act, the Directors are responsible for the management of the Company's business, for which purpose they may exercise all the powers of the Company.

8 Members’ Reserve Power And Approval Rights

- 8.1 The Members may, by special resolution, direct the Directors to take, or refrain from taking, specified action.
- 8.2 No such special resolution invalidates anything which the Directors have done before the passing of the resolution.
- 8.3 The Directors shall ensure that the Company will not do and will not enter into any agreement to do any of the following acts or things without the prior approval of the Members by special resolution:
- (a) enter into a partnership agreement or other formal agreement with the Secretary of State for Transport providing for the involvement of the Company in the specification, letting process or management of any rail franchise agreement; and
 - (b) make any substantial amendment to any such agreement.

9 Directors May Delegate

- 9.1 Subject to the Articles, the Directors may delegate any of the powers which are conferred on them under the Articles:
- (a) to such person or committee;
 - (b) by such means (including by power of attorney);
 - (c) to such an extent;
 - (d) in relation to such matters; and
 - (e) on such terms and conditions;
- as they think fit.

9.2 If the Directors so specify, any such delegation may authorise further delegation of the Directors' powers by any person to whom they are delegated.

9.3 The Directors may revoke any delegation in whole or part, or alter its terms and conditions.

10 Committees

10.1 Committees to which the Directors delegate any of their powers must follow procedures which are based as far as they are applicable on those provisions of the Articles which govern the taking of decisions by Directors.

10.2 The Directors may make rules of procedure for all or any committees, which prevail over rules derived from the Articles if they are not consistent with them.

11 Attendance Of Non-Directors At Directors' Meetings

11.1 The Directors may from time to time invite any persons they think fit to attend Directors' meetings and to speak (but not vote) at those meetings, either in relation to individual meetings or to Directors' meetings generally.

12 Directors To Take Decisions Collectively

12.1 Subject to article 12.3 any decision of the Directors must be either a majority decision at a Directors' meeting or a decision taken in accordance with article 13.

12.2 Subject to article 18 and article 24.3 each Director participating in a Directors' meeting has one vote in respect of decisions proposed to be taken at that meeting.

12.3 If:

(a) there is only one Director for the time being, and

(b) no provision of the Articles requires it to have more than one Director,

then the Director may (for so long as he remains the sole Director) take decisions without regard to any of the provisions of the Articles relating to Directors' decision-making except for the provisions of article 18 and article 8 and any other provision of the Articles requiring Directors' decisions to be approved by the Members.

13 Directors' Written Resolutions And Unanimous Decisions

13.1 Any Director may propose a Directors' written resolution by giving notice in writing, setting out the wording of the proposed resolution and the time limit for adopting it, to each of the other Directors, provided that where the Company has a company secretary a Director may instead require the company secretary to circulate that notice to each of the Directors.

13.2 A Directors' written resolution circulated in accordance with article 13.1 is adopted when a majority of Eligible Directors have signed one or more copies of it and circulated these to all Directors or otherwise indicated their agreement in writing to the resolution to all Directors before the relevant time limit expires.

13.3 For the purposes of article 13.2 a Substitute Director shall not be an Eligible Director and shall not be counted in calculating whether a majority of Eligible Directors have agreed a resolution unless either (1) the Principal Director for whom he or she is a substitute has ceased to be a Director and no replacement has yet been appointed pursuant to article 22.4 or (2):

- (a) the Principal Director for whom he or she is a substitute would be entitled to vote on the relevant matter at a Directors' meeting;
- (b) there would have been no requirement pursuant to article 18.3(c) not to count that vote; and
- (c) that Principal Director does not, within the applicable time limit, sign a copy of the written resolution or indicate in writing either agreement or disagreement to the resolution;

provided in each case that there would have been no requirement pursuant to article 18.3(c) not to count the Substitute Director's vote had the resolution been adopted at a Directors' meeting.

13.4 Where article 13.3 applies the relevant Substitute Director shall be an Eligible Director for the purposes of article 13.2 in place of the Principal Director for whom he or she is a substitute.

13.5 A unanimous decision of the Directors is taken when all Eligible Directors indicate to each other by any means that they share a common view on a matter and may take the form of a resolution in writing, where each Eligible Director has signed one or more copies of it, or to which each Eligible Director has otherwise indicated agreement in writing. For the purposes of this article 13.5 a Substitute Director is not an Eligible Director except in the circumstances set out in article 24.3(e) (in which case the agreement in writing of the Principal Director for whom he or she is a substitute shall not be required for the relevant unanimous decision).

13.6 A decision may not be taken in accordance with this article 13 if the Eligible Directors taking that decision would not have formed a quorum at a Directors' meeting.

14 Calling A Directors' Meeting

14.1 Unless otherwise agreed by the Directors, Directors' meetings shall be held in March, June, September and December of each year or otherwise at least four times per year with a period of not less than 10 weeks between any two meetings.

14.2 Any Director may call a Directors' meeting by giving not less than 5 Business Days' notice (or such lesser notice as all the Directors, excluding Substitute Directors, may agree) to the Directors or by authorising the company secretary (if any) to give such notice.

14.3 Notice of a Directors' meeting shall be given to each Director in writing.

14.4 A Director who is absent from the UK and who has no registered address in the UK shall not be entitled to notice of the Directors' meeting.

14.5 Notice of any Directors' meeting must indicate:

- (a) its proposed date and time;
- (b) where it is to take place; and
- (c) if it is anticipated that Directors participating in the meeting will not be in the same place, how it is proposed that they should communicate with each other during the meeting.

14.6 Notice of any Directors' meeting must be accompanied by an agenda specifying reasonably clearly the matters to be raised at the meeting.

14.7 Notice of a Directors' meeting need not be given to Directors who waive their entitlement to notice of that meeting, by giving notice to that effect to the Company before or up to 7 days after the date of the meeting. Where such notice is given after the meeting has been held, that does not affect the validity of the meeting, or of any business conducted at it.

15 Participation In Directors' Meetings

15.1 Subject to the Articles, Directors participate in a Directors' meeting, or part of a Directors' meeting, when:

- (a) the meeting has been called and takes place in accordance with the Articles, and
- (b) they can each communicate to the others any information or opinions they have on any particular item of the business of the meeting.

15.2 In determining whether Directors are participating in a Directors' meeting, it is irrelevant where any Director is or how they communicate with each other.

15.3 If all the Directors participating in a meeting are not in the same place, they may decide that the meeting is to be treated as taking place wherever any of them is.

16 Quorum For Directors' Meetings

16.1 Subject to article 16.3, the quorum for the transaction of business at a meeting of Directors shall be such number of Eligible Directors as is equal to the number of Directors that constitutes a majority in number of the Directors for the time being appointed (excluding any Substitute Director except where the Principal Director for whom the relevant Substitute Member acts as substitute has ceased to be a Director and has not been replaced pursuant to article 22.4).

16.2 At a Directors' meeting, unless a quorum is participating, no proposal is to be voted on, except a proposal to call another meeting.

16.3 For the purposes of any meeting (or part of a meeting) held pursuant to article 18 to authorise a Conflict, if there are less Eligible Directors than the quorum required by article 16.1 due to the number of Interested Directors (as defined in article 18.2) in relation to that Conflict, then the quorum for such meeting (or part of a meeting) shall be the number of such Eligible Directors.

17 Chairing Of Directors' Meetings

17.1 The Directors shall appoint one of the Directors as the Chair of the Company and one of the Directors as the Vice-Chair of the Company, such appointments to take effect (subject to early termination in accordance with article 17.2) either until the next annual general meeting of the Company (if the Company holds annual general meetings) or until the start of the first Directors' meeting to take place after the first anniversary of his or her appointment (if the Company does not hold annual general meetings), provided that:

- (a) where the Chair is a Director appointed by an Associate Member then the Vice-Chair must be a Director appointed by an LTA Member (and vice versa); and
- (b) the position of Chair and the position of Vice-Chair shall alternate between a Director appointed by an Associate Member and a Director appointed by an LTA Member.

- 17.2 The Directors may terminate the appointment of the Chair or Vice-Chair of the Company at any time provided they appoint a replacement.
- 17.3 The Chair (or the Vice-Chair if the Chair is not participating in the relevant meeting) shall chair Director's meetings provided that if neither the Chair nor the Vice-Chair is participating in a Directors' meeting within ten minutes of the time at which it was due to start, the participating Directors shall appoint one of themselves to chair it.
- 17.4 The chair of a Directors' meeting shall not have a casting vote in the event of an equality of votes cast for and against a proposal at the meeting.

18 Directors' Conflicts Of Interest

- 18.1 A Director, notwithstanding his office, may be an elected member of, a director or other officer of, employed by, or otherwise interested in, the Member who appointed him or her as a Director of the Company and no authorisation under this article 18 shall be necessary in respect of any such interest. Any Director shall be entitled from time to time to disclose to the Member who appointed him or her such information concerning the business and affairs of the Company as he or she shall at his or her discretion see fit.
- 18.2 The Directors may, in accordance with the requirements set out in this article, authorise any Conflict proposed to them by any Director which would, if not authorised, involve a Director (an Interested Director) breaching his duty under section 175 of the Act to avoid conflicts of interest.
- 18.3 Any authorisation under this article 18 shall be effective only if:
- (a) to the extent permitted by the Act, the matter in question shall have been proposed by any Director for consideration in the same way that any other matter may be proposed to the Directors under the provisions of these Articles;
 - (b) any requirement as to the quorum for consideration of the relevant matter is met without counting the Interested Director;
 - (c) the matter was agreed to without the Interested Director (or the Substitute Director for that Interested Director) voting or would have been agreed to if their vote had not been counted; and
 - (d) in the case of a Conflict arising as a result of a personal financial interest of the relevant Director or a connected person, the Company by ordinary resolution also authorises that Conflict.
- 18.4 In article 18.3(d) "connected person" means:
- (a) a child, parent, grandchild, grandparent, brother or sister of the relevant Director;
 - (b) the spouse or civil partner of the relevant Director or of any person falling within paragraph (a) above;
 - (c) a person carrying on business in partnership with the relevant Director or with any person falling within paragraph (a) or (b) above;
 - (d) an institution which is controlled:
 - (i) by the relevant Director or any connected person falling within paragraph (a), (b) or (c) above; or

- (ii) by two or more persons falling within subparagraph (i), when taken together; or
 - (e) a body corporate in which:
 - (i) the relevant Director or any connected person falling within paragraphs (a), (b) or (c) above has a substantial interest; or
 - (i) two or more persons falling within subparagraph (i) who, when taken together, have a substantial interest.
- 18.5 Any authorisation of a Conflict under this article 18 may (whether at the time of giving the authorisation or subsequently):
- (a) extend to any actual or potential conflict of interest which may reasonably be expected to arise out of the matter or situation so authorised;
 - (b) provide that the Interested Director be excluded from the receipt of documents and information and the participation in discussions (whether at meetings of the Directors or otherwise) related to the Conflict;
 - (c) provide that the Interested Director shall or shall not be an Eligible Director in respect of any future decision of the Directors in relation to any resolution related to the Conflict;
 - (d) impose upon the Interested Director such other terms for the purposes of dealing with the Conflict as the Directors think fit; and
 - (e) permit the Interested Director to absent himself from the discussion of matters relating to the Conflict at any meeting of the Directors and be excused from reviewing papers prepared by, or for, the Directors to the extent they relate to such matters.
- 18.6 Where the Directors authorise a Conflict, the Interested Director shall be obliged to conduct himself in accordance with any terms and conditions imposed by the Directors in relation to the Conflict.
- 18.7 The Directors may revoke or vary such authorisation at any time, but this shall not affect anything done by the Interested Director prior to such revocation or variation in accordance with the terms of such authorisation.
- 18.8 A Director is not required, by reason of being a Director (or because of the fiduciary relationship established by reason of being a Director), to account to the Company for any remuneration, profit or other benefit which he derives from or in connection with a relationship involving a Conflict which has been authorised by the Directors in accordance with these Articles or by the Company in general meeting (subject in each case to any terms, limits or conditions attaching to that authorisation) and no contract shall be liable to be avoided on such grounds.
- 18.9 Subject to sections 177(5), 177(6), 182(5) and 182(6) of the Act and to any voting restrictions or other terms imposed by the Directors pursuant to article 18.5 when authorising the relevant Conflict under article 18.2, and provided he or she has declared the nature and extent of his or her interest in accordance with the requirements of the Act, a Director who is in any way, whether directly or indirectly, interested in an existing or proposed transaction or arrangement with the Company:
- (a) may be a party to, or otherwise interested in, any transaction or arrangement with the Company or in which the Company is otherwise (directly or indirectly) interested;

- (b) shall be an Eligible Director for the purposes of any proposed decision of the Directors (or committee of Directors) in respect of such existing or proposed transaction or arrangement in which he or she is interested;
- (c) shall be entitled to vote at a meeting of Directors (or of a committee of the Directors) or participate in any unanimous decision, in respect of such existing or proposed transaction or arrangement in which he or she is interested;
- (d) may be a Director or other officer of, or employed by, or a party to a transaction or arrangement with, or otherwise interested in, any body corporate in which the Company is otherwise (directly or indirectly) interested; and
- (e) shall not, save as he may otherwise agree, be accountable to the Company for any benefit which he (or a person connected with him (as defined in section 252 of the Act)) derives from any such transaction or arrangement or from any such office or employment or from any interest in any such body corporate and no such transaction or arrangement shall be liable to be avoided on the grounds of any such interest or benefit nor shall the receipt of any such remuneration or other benefit constitute a breach of his duty under section 176 of the Act.

18.10 Subject to article 18.11, if a question arises at a meeting of Directors or of a committee of Directors as to the right of a Director to participate in the meeting (or part of the meeting) for voting or quorum purposes, the question may, before the conclusion of the meeting, be referred to the chair of the meeting whose ruling in relation to any Director other than the chair of the meeting is to be final and conclusive.

18.11 If any question as to the right to participate in the meeting (or part of the meeting) should arise in respect of the chair of the meeting, the question is to be decided by a decision of the Directors at that meeting, for which purpose the chair of the meeting is not to be counted as participating in the meeting (or that part of the meeting) for voting or quorum purposes.

18.12 Where a Conflict has been authorised by the Directors in accordance with article 18.2 or is permitted by article 18.1 then where the Director concerned obtains or has obtained (through his involvement in the Conflict and otherwise than through his or her position as a Director) information that is confidential to a third party (including any Member) the Director shall not be obliged to disclose that information to the Company or to use it in relation to the Company's affairs where to do so would amount to a breach of a duty or obligation of confidence owed by the Director to the relevant third party.

19 Records Of Decisions To Be Kept

19.1 In addition to ensuring that the Company retains a copy of the minutes of each Directors' meeting for ten years from the date of the meeting in accordance with section 248 of the Act, the Directors shall ensure that the Company keeps a record, in writing, for at least ten years from the date of the decision recorded, of every unanimous or majority decision taken by the Directors.

19.2 Where decisions of the Directors are taken by electronic means, such decisions shall be recorded by the Directors in permanent form, so that they may be read with the naked eye.

20 Directors' Discretion To Make Further Rules

- 20.1 Subject to the Articles, the Directors may make any rule which they think fit about how they take decisions, and about how such rules are to be recorded or communicated to Directors.

PART 3 - APPOINTMENT OF DIRECTORS AND COMPANY SECRETARY

21 Number Of Directors

- 21.1 Unless otherwise determined by special resolution, the number of Directors (other than Substitute Directors) shall be subject to a maximum equal to one less than the number of Members of the Company for the time being and shall not be less than three.

22 Appointment And Removal Of Directors And Substitute Directors

- 22.1 Each Member (other than the ITA) and each Associate Member shall be entitled to appoint one person to be a Director of the Company (Principal Director) and a further person as a substitute for that Director (Substitute Director), subject to them being willing to act as Directors and permitted by law to do so.
- 22.2 Any Director appointed pursuant to article 22.1 may at any time be removed from office by the Member who appointed him or her.
- 22.3 Any appointment or removal of a Director pursuant to this article 22 shall be in writing and signed by or on behalf of the relevant Member and served on the Company at its registered office, marked for the attention of the company secretary or the Directors or delivered to a duly constituted Directors' meeting as well as (in the case of removal of a Director) on the relevant Director. Any such appointment or removal shall take effect when received by the Company or at such later time as shall be specified in such notice.
- 22.4 If any Director shall die or be removed from or vacate office for any cause, the Member who appointed him or her shall be entitled to appoint another person in his place pursuant to article 22.1.
- 22.5 No Director shall be appointed or removed otherwise than pursuant to these Articles, save as provided by law.

23 Termination Of Directors' Appointments

- 23.1 A person ceases to be a Director with immediate effect where:
- (a) the Member who appointed that person pursuant to article 22.1 has ceased to be a Member of the Company;
 - (b) the Director was an elected member of the Member who appointed him or her (including by being an elected mayor) and has ceased to be such an elected member;
 - (c) (in the case of a Director appointed by an Associate Member) article 30.4 applies;
 - (d) that person dies or is removed from office pursuant to article 22.2;
 - (e) that person ceases to be a Director by virtue of any provision of the Act or is prohibited from being a Director by law;

- (f) a bankruptcy order is made against that person;
- (g) a composition is made with that person's creditors generally in satisfaction of that person's debts; or
- (h) notification is received by the Company from the Director that the Director is resigning from office, and such resignation has taken effect in accordance with its terms.

24 Rights And Responsibilities Of Substitute Directors

24.1 The role of a Substitute Director shall generally be, in relation to the taking of decisions by the Directors, to exercise the powers of the Principal Director for whom they have been appointed as a substitute and to carry out his or her responsibilities in the event of his or her absence or non-participation.

24.2 Except as the Articles otherwise provide, Substitute Directors:

- (a) are deemed for all purposes to be Directors;
- (b) are liable for their own acts and omissions;
- (c) are subject to the same restrictions as the Principal Directors for whom they act as substitutes; and
- (d) are not deemed to be agents of or for the Principal Directors for whom they act as substitutes;

and, in particular (without limitation), each Substitute Director shall be entitled to receive notice of all Directors' meetings and of all meetings of committees of Directors of which the Principal Director for whom he or she acts as substitute is a member.

24.3 A Substitute Director:

- (a) unless otherwise agreed by the relevant Directors' meeting, may only participate in a Directors' meeting or a committee of Directors if the Principal Director for whom he or she acts as substitute is not participating in the meeting;
- (b) may only vote on a resolution taken by a Directors' meeting or a committee of Directors if the Principal Director for whom he or she acts as substitute is not participating in the meeting;
- (c) may only be counted as participating for the purposes of determining whether a quorum is present if the Principal Director for whom he or she acts as substitute is not participating in the relevant Directors' or committee of Directors' meeting;]
- (d) may only participate in adopting a Directors' written resolution pursuant to article 13.2 where permitted by article 13.3; and
- (e) may only participate in a unanimous decision of the Directors pursuant to article 13.5 if:
 - (i) the Principal Director for whom he or she acts as substitute is an Eligible Director in relation to that decision and does not indicate in writing either agreement or disagreement to the decision; or

- (ii) that Principal Director has ceased to be a Director and no replacement has yet been appointed pursuant to article 22.4.

24.4 A Substitute Director may be paid expenses and may be indemnified by the Company to the same extent as any Principal Director but shall not be entitled to receive any remuneration from the Company for serving as a Substitute Director except such part (if any) of the remuneration otherwise payable to the Principal Director for whom he or she acts as substitute as that Principal Director may by notice in writing to the Company from time to time direct.

25 Directors' Remuneration

25.1 Directors may undertake any services for the Company that the Directors decide.

25.2 Subject to article 25.3, Directors are entitled to such reasonable and proper remuneration as the Directors determine:

- (a) for their services to the Company as Directors, and
- (b) for any other service which they undertake for the Company.

25.3 A Director who is for the time being an employee or an elected member of a Member (including by being an elected mayor) may not receive any remuneration pursuant to article 25.2 for his or her services to the Company as a Director.

25.4 Subject to the Articles, a Director's remuneration may:

- (a) take any form, and
- (b) include any arrangements in connection with the payment of a pension, allowance or gratuity, or any death, sickness or disability benefits, to or in respect of that Director.

25.5 Unless the Directors decide otherwise, Directors' remuneration accrues from day to day.

25.6 Unless the Directors decide otherwise, Directors are not accountable to the Company for any remuneration which they receive as Directors or other officers or employees of the Company's subsidiaries or of any other body corporate in which the Company is interested.

26 Directors' Expenses

26.1 Subject to article 26.2 the Company may pay any reasonable expenses which the Directors and the company secretary (where applicable) properly incur in connection with their attendance at:

- (a) meetings of Directors or committees of Directors,
- (b) general meetings, or
- (c) separate meetings of the holders of debentures of the Company,

or otherwise in connection with the exercise of their powers and the discharge of their responsibilities in relation to the Company.

26.2 In the case of a Director who is for the time being an elected member of a Member (including by being an elected mayor) any expenses paid pursuant to article 26.1 in respect of travelling or subsistence shall not exceed the maximum amount of

travelling or subsistence allowances which would for the time being be payable to that Director by the relevant Member if the duties in respect of which such expenses are paid were approved duties for the purposes of section 174 of the Local Government Act 1972.

27 Secretary

- 27.1 The Directors may appoint any person who is willing to act as the company secretary for such term, at such remuneration and upon such conditions as they may think fit and from time to time remove such person and, if the Directors so decide, appoint a replacement, in each case by a decision of the Directors.

PART 4 – MEMBERSHIP

28 Membership Categories And Admission Of Members

- 28.1 There are two categories of membership having the differing rights set out in these Articles as follows:

- (a) LTA Members, being members of the Company who are local transport authorities; and
- (b) Associate Members, being members of the Company who are not local transport authorities.

29 Admission of Members

- 29.1 Except with the prior approval of the Members by special resolution only the following shall be entitled to be admitted as members of the Company:

- (a) the ITA (as an LTA Member);
- (b) Herefordshire Council (as an LTA Member);
- (c) Northamptonshire County Council (as an LTA Member);
- (d) Shropshire Council (as an LTA Member);
- (e) Staffordshire County Council (as an LTA Member);
- (f) Borough of Telford & Wrekin (as an LTA Member);
- (g) Warwickshire County Council (as an LTA Member);
- (h) Worcestershire County Council (as an LTA Member);
- (i) Birmingham City Council (as an Associate Member);
- (j) Coventry City Council (as an Associate Member);
- (k) Dudley Metropolitan Borough Council (as an Associate Member);
- (l) Sandwell Metropolitan Borough Council (as an Associate Member);
- (m) Solihull Metropolitan Borough Council (as an Associate Member);

- (n) Walsall Metropolitan Borough Council (as an Associate Member); and
- (o) Wolverhampton City Council (as an Associate Member).

29.2 No person shall become a Member unless that person has completed an application for membership in a form approved by the Directors and that application has been approved by the Directors (provided that the applications for membership of the prospective LTA Members and Associate Members listed in article 29.1 shall not require any such approval).

30 Termination Of Membership And Change Of Membership Status

30.1 Members may terminate their membership of the Company by giving 7 days' notice to the Company in writing.

30.2 Members may not transfer their membership and their membership shall terminate automatically on:

- (a) the Member's death or bankruptcy (in the case of a natural person);
- (b) the Member going into receivership, administrative receivership, administration, liquidation or other arrangement for the winding up of a company (in the case of a company); or
- (c) the Member ceasing to exist (in the case of a public authority) save where another authority inherits substantially the whole of their statutory functions and the Member's membership is transferred to that other authority by means of a statutory transfer scheme or otherwise by operation of law (including, for the avoidance of doubt where the statutory functions and membership of the ITA is transferred to a combined authority).

30.3 Where an LTA Member ceases to be a local transport authority (other than where this occurs as a result of legislative change that does not remove from the LTA Member the functions it had by reason of being named as a local transport authority in section 108 of the Transport Act 2000) the relevant LTA Member shall become an Associate Member.

30.4 Where an Associate Member is a constituent council of the ITA (or of such other authority to whom the ITA's membership is transferred as permitted by article 30.2(c)) and ceases to be such a constituent council then the Associate Member shall cease to have the right to appoint and remove Directors pursuant to article 22.1 and any persons appointed as Directors by that Associate Member under article 22.1 shall cease to be Directors.

31 Expulsion Of Members

31.1 Where the Members have by special resolution under article 29.1 authorised the admittance as a Member of a person or body that is not a local authority, the Directors may terminate the membership of that Member without the Member's consent by giving written notice to the Member where, in the reasonable opinion of the Directors:

- (a) the Member is guilty of conduct which has or is likely to have a serious adverse effect on the Company or bring the Company or any or all of the Members and Directors into disrepute; or
- (b) the Member has acted or has threatened to act in a manner which is contrary to the interests of the Company as a whole; or

- (c) the Member has failed to observe the terms of these Articles.
- 31.2 Any notice to a Member given under article 31.1 must give the Member the opportunity to be heard in writing or in person as to why the Member's membership should not be terminated. The Directors must consider any representations made by the Member and inform the Member of their decision following such consideration. There shall be no right to appeal from a decision of the Directors to terminate the membership of a Member.
- 31.3 A Member whose membership is terminated under this Article 31 shall not be entitled to a refund of any subscription or membership fee and shall remain liable to pay to the Company any subscription or other sum owed by the Member.

PART 5 – MEMBER'S MEETINGS

32 Calling Of General Meetings

- 32.1 The Directors may, whenever they think fit, and shall on requisition in accordance with the Act, proceed to convene a general meeting. If there are not sufficient Directors to call a general meeting then any Director or Member may call a general meeting.
- 32.2 A general meeting shall be called by at least fourteen days notice (excluding the day on which the notice is served or deemed to be served and the day on which the meeting is to be held) unless Members who together hold at least 90% of the voting rights at general meetings (disregarding voting rights resulting from the application of article 38.3) agree to the holding of the general meeting on shorter notice provided that where a resolution proposed to be considered at a general meeting requires special notice in accordance with the Act the meeting shall be called by at least twenty eight days notice (excluding the day on which the notice is served or deemed to be served and the day on which the meeting is to be held).
- 32.3 Every notice calling a general meeting shall:
 - (a) specify the place, date and time of the meeting;
 - (b) specify the general nature of the business to be transacted at the meeting;
 - (c) set out the text of all resolutions to be considered by the meeting and indicate in each case whether it is proposed as an ordinary resolution or as a special resolution;
 - (d) include with reasonable prominence a statement that a Member entitled to attend and vote is entitled to a proxy to exercise all or any of their rights to attend, speak and vote and that a proxy need not be a Member; and
 - (e) set out the addresses to which any proxy notice is to be sent in accordance with article 41 (which shall include an e-mail address for delivery of proxy notices in electronic form).
- 32.4 Every Member and Director shall be entitled to receive notices of general meetings, which shall also be given to the auditors for the time being of the Company.
- 32.5 The accidental omission to give notice of any general meeting or the non-receipt of such notice by any person entitled to receive the same shall not invalidate the proceedings of that meeting.

33 Attendance And Speaking At General Meetings

- 33.1 A person is able to exercise the right to speak at a general meeting when that person is in a position to communicate to all those attending the meeting, during the meeting, any information or opinions which that person has on the business of the meeting.
- 33.2 A person is able to exercise the right to vote at a general meeting when:
- (a) that person is able to vote, during the meeting, on resolutions put to the vote at the meeting, and
 - (b) that person's vote can be taken into account in determining whether or not such resolutions are passed at the same time as the votes of all the other persons attending the meeting.
- 33.3 The Directors may make whatever arrangements they consider appropriate to enable those attending a general meeting to exercise their rights to speak or vote at it.
- 33.4 In determining attendance at a general meeting, it is immaterial whether any two or more members attending it are in the same place as each other.
- 33.5 Two or more persons who are not in the same place as each other attend a general meeting if their circumstances are such that if they have (or were to have) rights to speak and vote at that meeting, they are (or would be) able to exercise them.

34 Quorum For General Meetings

- 34.1 The quorum for a general meeting shall be such Members (present in person, by proxy or by authorised representative in accordance with section 323 of the Act) who together hold a majority of the voting rights at the general meeting (disregarding voting rights resulting from the application of article 38.3).
- 34.2 No business other than the appointment of the chair of the meeting is to be transacted at a general meeting if the persons attending it do not constitute a quorum.

35 Chairing General Meetings

- 35.1 The Chair appointed pursuant to article 17.1 (or if not present and willing to do so, the Vice-Chair appointed pursuant to that article) shall chair general meetings if present and willing to do so.
- 35.2 If neither the Chair nor the Vice-Chair are willing to chair the meeting or are not present within 10 minutes of the time at which a meeting was due to start:

- (a) the Directors present, or
- (b) (if no Directors are present), the meeting,

must appoint a Director or Member (or Member representative) to chair the meeting, and the appointment of the chair of the meeting must be the first business of the meeting.

36 Attendance And Speaking By Directors And Non-Members

- 36.1 Directors may attend and speak at general meetings, whether or not they are Members or appointed proxies or representatives of Members.
- 36.2 The chair of the meeting may permit other persons who are not Members or representatives of Members to attend and speak at a general meeting.

37 Adjournment

- 37.1 If the persons attending a general meeting within half an hour of the time at which the meeting was due to start do not constitute a quorum, or if during a meeting a quorum ceases to be present, the chair of the meeting must adjourn it.
- 37.2 The chair of the meeting may adjourn a general meeting at which a quorum is present if:
- (a) the meeting consents to an adjournment, or
 - (b) it appears to the chair of the meeting that an adjournment is necessary to protect the safety of any person attending the meeting or ensure that the business of the meeting is conducted in an orderly manner.
- 37.3 The chair of the meeting must adjourn a general meeting if directed to do so by the meeting.
- 37.4 When adjourning a general meeting, the chair of the meeting must:
- (a) either specify the time and place to which it is adjourned or state that it is to continue at a time and place to be fixed by the Directors, and
 - (b) have regard to any directions as to the time and place of any adjournment which have been given by the meeting.
- 37.5 If the continuation of an adjourned meeting is to take place more than 14 days after it was adjourned, the Company must give at least 7 days' notice of it (excluding day on which the notice is given and the day of the adjourned meeting):
- (a) to the same persons to whom notice of the Company's general meetings is required to be given, and
 - (b) containing the same information which such notice is required to contain.
- 37.6 No business may be transacted at an adjourned general meeting which could not properly have been transacted at the meeting if the adjournment had not taken place.

38 Voting At General Meetings

- 38.1 All votes at general meetings shall be taken by way of a poll except where a resolution is passed unanimously by a show of hands of the Members entitled to vote on the resolution and present at the general meeting (either in person, by proxy or by authorised representative) and a poll vote has not been duly demanded in accordance with the Articles.
- 38.2 Subject to article 38.3, on a poll vote:
- (a) the ITA or (where applicable) such Member to whom the ITA's membership is transferred as permitted by article 30.2 shall have seven votes provided that, where the ITA's membership has been so transferred and the number of constituent councils of the transferee Member is not seven, the transferee Member shall have one vote for each constituent council for whose area it is the local transport authority;
 - (b) each LTA Member other than the ITA or Member referred to in paragraph (a) shall have one vote; and
 - (c) Associate Members shall not have a vote.

- 38.3 On a resolution to remove a Director appointed by a Member pursuant to article 22.1, the Member who appointed that Director (including where that Member is an Associate Member) shall have such number of votes as shall be required to enable that Member to prevent the passing of that resolution.
- 38.4 In accordance with the Act, the chair of a general meeting shall not have a casting vote in the event of an equality of votes cast for and against a resolution.
- 38.5 No objection may be raised to the qualification of any person voting at a general meeting except at the meeting or adjourned meeting at which the vote objected to is tendered, and every vote not disallowed at the meeting is valid. Any such objection must be referred to the chair of the meeting whose decision is final.

39 Poll Votes

- 39.1 A poll may be demanded at any general meeting by any qualifying person (as defined in section 318 of the Act) present and entitled to vote at the meeting.
- 39.2 A poll on a resolution may be demanded:
- (a) in advance of the general meeting where it is to be put to the vote, or
 - (b) at a general meeting, either before a show of hands on that resolution or immediately after the result of a show of hands on that resolution is declared.
- 39.3 A demand for a poll may be withdrawn if—
- (a) the poll has not yet been taken, and
 - (b) the chair of the meeting consents to the withdrawal;

and a demand so withdrawn shall not invalidate the result of a show of hands declared before the demand was made.

- 39.4 Polls must be taken immediately and in such manner as the chair of the meeting directs.

40 Authorised Representatives Of Members

- 40.1 Where a Member that is a corporation (whether or not a public authority or a company) by resolution of its directors or other governing body authorises a person to act as its representative and to exercise its voting rights and other powers at a general meeting in accordance with section 323 of the Act then a Director, the company secretary or such other person as the Directors have authorised so to require, may require the representative to produce a certified copy of that resolution.

41 Proxies

- 41.1 Proxies may only validly be appointed by a notice in writing (a **proxy notice**) which:
- (a) states the name and address of the Member appointing the proxy;
 - (b) identifies the person appointed to be that Member's proxy and the general meeting in relation to which that person is appointed;
 - (c) is signed by or on behalf of the Member appointing the proxy, or is authenticated in such manner as the Directors may determine; and

- (d) is delivered to the Company in accordance with the Articles not less than 48 hours before the time appointed for holding the meeting or adjourned meeting at which the right to vote is to be exercised and in accordance with any instructions contained in the notice of the general meeting (or adjourned meeting) to which they relate;

and a proxy notice which is not delivered in such manner shall be invalid, unless the Directors, in their discretion, accept the notice at any time before the meeting.

- 41.2 The Directors may require proxy notices to be delivered in a particular form, and may specify different forms for different purposes.
- 41.3 Proxy notices may specify how the proxy appointed under them is to vote (or that the proxy is to abstain from voting) on one or more resolutions.
- 41.4 Unless a proxy notice indicates otherwise, it must be treated as:
 - (a) allowing the person appointed under it as a proxy discretion as to how to vote on any ancillary or procedural resolutions put to the meeting, and
 - (b) appointing that person as a proxy in relation to any adjournment of the general meeting to which it relates as well as the meeting itself.
- 41.5 A Member who is entitled to attend, speak or vote at a general meeting remains so entitled in respect of that meeting or any adjournment of it, even though a valid proxy notice has been delivered to the Company by or on behalf of that Member.
- 41.6 An appointment under a proxy notice may be revoked by delivering to the Company a notice in writing given by or on behalf of the Member by whom or on whose behalf the proxy notice was given.
- 41.7 A notice revoking a proxy appointment only takes effect if it is delivered before the start of the meeting or adjourned meeting to which it relates.

42 Amendments To Resolutions

- 42.1 An ordinary resolution to be proposed at a general meeting may be amended by ordinary resolution if:
 - (a) notice of the proposed amendment is given to the Company in writing by a person entitled to vote at the general meeting at which it is to be proposed not less than 48 hours before the meeting is to take place (or such later time as the chair of the meeting may determine), and
 - (b) the proposed amendment does not, in the reasonable opinion of the chair of the meeting, materially alter the scope of the resolution.
- 42.2 A special resolution to be proposed at a general meeting may be amended by ordinary resolution, if:
 - (a) the chair of the meeting proposes the amendment at the general meeting at which the resolution is to be proposed, and
 - (b) the amendment does not go beyond what is necessary to correct a grammatical or other non-substantive error in the resolution.
- 42.3 If the chair of a general meeting, acting in good faith, wrongly decides that an amendment to a resolution is out of order, the chair's error does not invalidate the vote on that resolution.

PART 6 – ADMINISTRATIVE ARRANGEMENTS

43 Means Of Communication To Be Used

- 43.1 Subject to the Articles, anything sent or supplied by or to the Company under the Articles may be sent or supplied in any way in which the Act provides for documents or information which are authorised or required by any provision of that Act to be sent or supplied by or to the Company.
- 43.2 Subject to the Articles, any notice or document to be sent or supplied to a Director in connection with the taking of decisions by Directors may also be sent or supplied by the means by which that Director has asked to be sent or supplied with such notices or documents for the time being.
- 43.3 A Director may agree with the Company that notices or documents sent to that Director in a particular way are to be deemed to have been received within a specified time of their being sent, and for the specified time to be less than 48 hours.
- 43.4 Any notice, document or other information shall be deemed served on or delivered to the intended recipient:
- (a) if properly addressed and sent by prepaid United Kingdom first class post to an address in the United Kingdom, 48 hours after it was posted;
 - (b) if sent by reputable international overnight courier addressed to the intended recipient (provided that delivery in at least five Business Days was guaranteed at the time of sending and the sending party receives a confirmation of delivery from the courier service provider), five Business Days after posting either to an address outside the United Kingdom or from outside the United Kingdom to an address within the United Kingdom;
 - (c) if properly addressed and delivered by hand, when it was given or left at the appropriate address; and
 - (d) if properly addressed and sent or supplied by electronic means, one hour after the document or information was sent or supplied;
 - (e) if sent or supplied by means of a website the later of the time when the material is first made available on the website and the one hour after the recipient receives notice of the fact that the material is available on the website.

For the purposes of this article, no account shall be taken of any part of a day that is not a Business Day.

- 43.5 In proving that any notice, document or other information was properly addressed, it shall suffice to show that the notice, document or other information was addressed to an address permitted for the purpose by the Act.

44 Company Seal

- 44.1 Any common seal may only be used by the authority of the Directors.
- 44.2 The Directors may decide by what means and in what form any common seal is to be used.

- 44.3 Unless otherwise decided by the Directors, if the Company has a common seal and it is affixed to a document, the document must also be signed by at least one authorised person in the presence of a witness who attests the signature.
- 44.4 For the purposes of this article, an authorised person is:
- (a) any Director;
 - (b) the company secretary (if any); or
 - (c) any person authorised by the Directors for the purpose of signing documents to which the common seal is applied.

45 Application of the Local Authorities (Companies) Order 1995

- 45.1 For so long as the Company is a controlled company and/or a regulated company for the purposes of the Local Authorities (Companies) Order 1995 the Company shall comply with any applicable requirements of that Order including where applicable in relation to:
- (a) provision of information to auditors of Members who are local authorities;
 - (b) provision of information to elected members of Members;
 - (c) obtaining the Audit Commission's consent to appointment of the Company's auditors; and
 - (d) making minutes of general meetings available for inspection by members of the public.

Directors' Indemnity And Insurance

46 Indemnity And Insurance

- 46.1 Subject to article 46.2, but without prejudice to any indemnity to which a relevant officer is otherwise entitled:
- (a) each relevant officer shall be indemnified out of the Company's assets against all costs, charges, losses, expenses and liabilities incurred by him as a relevant officer in the actual or purported execution and/or discharge of his duties, or in relation to them including any liability incurred by him in defending any civil or criminal proceedings, in which judgment is given in his favour or in which he is acquitted or the proceedings are otherwise disposed of without any finding or admission of any material breach of duty on his part or in connection with any application in which the court grants him, in his capacity as a relevant officer, relief from liability for negligence, default, breach of duty or breach of trust in relation to the Company's (or any associated company's) affairs; and
 - (b) the Company may provide any relevant officer with funds to meet expenditure incurred or to be incurred by him in connection with any proceedings or application referred to in paragraph (a) and otherwise may take any action to enable any such relevant officer to avoid incurring such expenditure.
- 46.2 Article 46.1 does not authorise any indemnity to the extent that such indemnity would be prohibited or rendered void by any provision of the Companies Acts or by any other provision of law and any such indemnity is limited accordingly.

46.3 The Directors may decide to purchase and maintain insurance, at the expense of the Company, for the benefit of any relevant officer in respect of any relevant loss.

46.4 In this article 46:

- (a) companies are associated if one is a subsidiary of the other or both are subsidiaries of the same body corporate; and
- (b) a "relevant loss" means any loss or liability which has been or may be incurred by a relevant officer in connection with that relevant officer's duties or powers in relation to the Company, any associated company or any pension fund or employees' share scheme of the Company or associated company; and
- (c) a "relevant officer" means any Director or other officer of the Company or an associated company, but excluding any person engaged by the Company (or associated company) as auditor (whether or not he is also a Director or other officer), to the extent he acts in his capacity as auditor).

This page is intentionally left blank



Worcestershire
County Council

Renewable Energy Strategy

Foreword

“Worcestershire County Council has a proud history of taking action to reduce our impact on the environment, and supporting our communities and businesses to do the same. One of the greatest challenges we all face is ensuring a reliable and affordable supply of energy, and making sure that the energy we do use is from the least damaging sources.

Investing in renewable energy doesn’t just help the planet; it can make sound financial sense, too. The less money we spend on energy, the more we can save for crucial local services. Using the resources on our doorstep means we can avoid importing so much gas and electricity from distant power stations and take control of our own energy production.

Not every energy technology will be suitable in every part of Worcestershire, and it's important that we continue to protect what makes our county so special. But the right type of renewable energy in the right place not only contributes to carbon reduction targets, but also brings new income and new jobs, and puts Worcestershire on the map as a forward-thinking place where green investment is welcomed.

This strategy sets out, in simple terms, our broad ambitions to see more renewables in the county, and to see the county council playing a key role in making the best use of its own resources to support our green goals. ”



Anthony Blagg

Councillor Anthony Blagg, Cabinet Member for the Environment.

The opportunity

Worcestershire County Council's (WCC) leadership can help to ensure that the environmental, social and economic benefits of renewable energy are captured for Worcestershire's residents and businesses. Direct WCC investment could provide multi-million pound revenues over 20 years, helping to protect front-line services.

WCC intends to make best use of its own estate to realise these opportunities. Developing renewable energy schemes on its extensive portfolio of land and buildings would not only bring in new revenue, but could demonstrate the council's commitment to green technology and to tackling climate change.

What is renewable energy?

For the purposes of this strategy, renewable energy is energy derived from hydro-power, wind turbines, biomass¹, solar photovoltaic panels and geothermal energy. A companion document to this Strategy, the WCC Renewable Energy Research Paper, provides information on these technologies and their social, environmental and economic impacts.

What does this strategy do?

This strategy sets an overarching policy for how WCC will use its resources to promote and develop its own renewable energy schemes, and sets out the role that WCC can play in supporting appropriate renewables development more generally. It focuses primarily on those actions and influences within WCC's control, but recognises that some options will require cooperation between partners.

This strategy sits alongside a guidance document on the benefits and impacts of larger-scale renewable energy, available at www.worcestershire.gov.uk/planning.

This strategy will be reviewed as necessary to reflect regulatory or financial changes, and to ensure consistency with relevant national and WCC policy.

What will success look like?

Successful implementation of this strategy will mean more renewable energy installations within Worcestershire. This will necessarily mean changes to the natural and historic environment and to the appearance of land and buildings, as well as other changes resulting from new development.

¹ Biomass includes virgin wood from forestry, arboricultural activities or from wood processing; energy crops; agricultural residues; food waste; and industrial waste and co-products from manufacturing and industrial processes. Source: www.biomassenergycentre.org.uk.

Drivers

➤ A need for more energy from more sources

Worcestershire is dependent on centralised power generation to meet its electricity needs, but as older plant closes down, there is an increasing need to ensure there is sufficient generation to meet our needs. The National Grid's Winter Outlook 2014/15 recently stated that "*electricity margins are tighter than they have been for a number of years*", and appropriate dispersed generation can help to stabilise the balance between supply and demand.

➤ Ever-increasing heating and lighting costs

WCC's annual electricity and gas costs are almost £6 million, and continual increases threaten to stretch reduced budgets further still; WCC's Corporate Plan recognises that efficiencies in council spending can be undermined by rising utility bills, stating that "*some savings have been offset by inflationary pressures such as raw material and energy costs*". Investing in renewables could help to safeguard service delivery by insulating the council against further price rises.

➤ Investment opportunities offered by renewables

Government-set tariff payments for renewable energy can typically be expected to provide a guaranteed, index-linked income for a 20 year period. WCC is well-placed, with access to low-cost capital and a long-term view of investment, to identify profitable schemes. As an energy producer, the council could also benefit from any increases in wholesale prices, if it chose to sell the energy produced from its own generation.

➤ Greater community awareness of energy options

WCC, in partnership with others, can support its economy and communities through a proactive approach to renewable energy. The council continues to develop in-kind support and guidance to help communities and businesses save money and realise their green goals.

➤ A need to protect our environment

As one of WCC's four corporate priorities, the council has a commitment to enhance the county's high-quality environment, including taking action to reduce carbon emissions. Renewable energy can play a valuable role in making this happen.

Aims

1. INCREASE RENEWABLE ENERGY GENERATION IN WORCESTERSHIRE
2. SECURE NEW INCOME STREAMS FOR WORCESTERSHIRE COUNTY COUNCIL
3. IMPROVE WORCESTERSHIRE'S ENERGY SECURITY
4. REDUCE CARBON EMISSIONS

Objectives

The following objectives represent the main steps that will be needed to achieve this strategy's aims. A more detailed breakdown of the objectives, including targets, timescales and resource implications, will be developed in a delivery plan to accompany this strategy.

- a) Deliver WCC schemes that satisfy WCC social, environmental and economic policies and that demonstrate an acceptable balance between risk and return.
- b) Support communities to develop renewable energy schemes, through guidance and capacity building, as part of a broad approach including energy efficiency, collective purchase, and demand management.
- c) Manage sites through their life to ensure sensitive operation.
- d) Build relationships with other local authorities with expertise in renewable energy.
- e) Explore the economic opportunities for WCC arising from joined-up working between public sector organisations, including through the 'Place Partnership' joint asset management initiative.

How will the impacts be addressed?

Any major renewable energy scheme will need to gain planning permission, and as such it must satisfy the relevant local and national policy. WCC is committed to an honest and open dialogue with communities over the impacts of schemes, and will seek to engage positively with local communities before any planning applications are submitted. Where relevant, applications will be accompanied by specialist assessments of their impacts, including on landscape and ecology.

How does this fit in with planning?

This strategy is non-statutory and does not constitute part of the formal 'development plan' that is the first port of call when determining planning applications. However, once adopted, it may be a material consideration that could be drawn upon in such decision making, where relevant. It guides WCC's own approach to renewable energy and supports the aims of the Corporate Plan. Most schemes beyond the small scale (typically building-mounted) will need planning permission from either the county or district council; these applications will be judged against relevant national and local planning policy.

How does this fit with other WCC policy?

WCC has a long-established track record of environmental success, and the following policies demonstrate how - either alone or as a member of wider partnerships - a strengthened approach to renewable energy can help deliver the council's policy commitments.

WCC's [Corporate Plan Refresh 2013-17](#) sets out a clear commitment to maximise environmental assets to deliver sustainable economic growth and calls for *"a clear and consistent approach to the use and application of renewable energy in the county"*. Increasing renewable energy will contribute to the corporate success measure of the *"amount of renewable and low carbon energy generated in the county"*.

WCC's [Carbon Management Plan](#) sets an ambitious target to reduce the council's 2009/10 CO₂ emissions by 30% by 2016, noting that *"anything we do now to increase energy efficiency or to invest in renewable energy technologies, will significantly reduce our energy costs into the future"*. One of the Plan's key objectives is to *"develop renewable energy generation, where possible and affordable, to reduce our dependence upon the National Grid"*.

WCC's adopted [Waste Core Strategy](#), which is part of the Development Plan for Worcestershire, includes an objective to base decisions on the need to reduce greenhouse gas emissions and to be resilient to climate change, and includes a policy that specifically requires a renewable energy contribution from waste-related developments over a certain size.

The Worcestershire Partnership's [Climate Change Strategy 2012-2020](#) aims include to *"help to realise the county's potential to harness the power of renewable energy, recognising the importance of public perception"*. It recognises the role of this strategy as a local delivery tool to help to make this happen.

The Worcestershire Local Enterprise Partnership's [Strategic Economic Plan](#) recognises 'agri-tech' (including green energy) as one of the county's three growth sectors. Among Worcestershire's key infrastructure issues that need to be addressed, it identifies an over-reliance on energy supplies from outside the county and an over-reliance on energy from non-sustainable sources. As part of the SEP's aspirations to create a world-class business location, it recognises that *"renewable energy generation has the potential to relieve pressures on the existing energy infrastructure, as well as providing potential employment opportunities and cost reductions"*.

Looking at the county's long-term future, Worcestershire's [Next Generation Plan](#) recognises the need to *"invest in our environment and use our resources wisely"*. The Plan supports renewable energy and includes a commitment to *"encourage green technology and green businesses in order to grow our economic prosperity [to] ensure that Worcestershire benefits from renewable and environmental technologies"*.

Implementation

WCC is driving this strategy, but it can only be fully effective across the county if it responds to the needs of district councils, the wider public sector, developers, businesses and communities.

Please contact us if you need this document in another format, or if you have any questions.

Phone: **01905 766097**

Email: **sp@worcestershire.gov.uk**

Write to: **Strategic Planning
Worcestershire County Council
County Hall
Worcester
WR5 2NP**



This page is intentionally left blank



Worcestershire
County Council

Renewable Energy Research Paper

Contents

1.	Executive Summary	1
2.	Introduction	2
3.	Background	3
4.	Why Worcestershire?	5
5.	Policy context	7
6.	Supporting the green economy	10
6.1	Job creation	10
6.2	Expertise in manufacturing and research and development	11
6.3	Increased energy security and reliability of supply	11
6.4	Income for individuals, communities, and councils, not just for 'big business'	12
6.5	Reduced fuel poverty	14
6.6	Putting Worcestershire's green economy on the map	15
6.7	Increased income for landowners	16
6.8	Farm diversification/revitalisation of rural economies	17
7	Environmental benefits	19
7.1	Reducing carbon emissions	19
7.2	Creating new environments	20
7.3	Managing existing environments	20
7.4	Reducing flooding and/or flood risk	21
7.5	Air quality improvements	21
8	Social benefits	22
8.1	Community pride	22
8.2	Expansion of community capacity	22
8.3	Ground rent and community funding	22
8.4	Improved viability of community assets (e.g. village halls)	22
8.5	Educational opportunities	23
8.6	Longer-term health and quality of life benefits	23
9	Tackling the barriers	24
9.1	Lack of capacity in the local distribution network	24
9.2	Lack of evidence	25
9.3	Lack of clear criteria	25
9.4	Lack of familiarity with renewables	26
9.5	Community concerns	26

1. Executive Summary

- 1.1. Renewable energy of the right scale and in the right location offers multiple benefits to Worcestershire's businesses and communities. It can provide:
 - ✓ More jobs
 - ✓ Reduced energy bills
 - ✓ Sustainable income streams
 - ✓ Increased energy security
 - ✓ Resilience to uncertain energy prices
- 1.2. This research paper sets out the valuable contribution that renewable energy can make to Worcestershire's green economy, and explores the social and environmental benefits of increasing provision. It identifies the challenges that can slow the growth of renewables, and explores possible ways of overcoming these whilst ensuring our communities' views are heard.
- 1.3. Policy and financial support at national and local levels are driving the growth in renewable energy, and this paper recognises the need for strong frameworks to be in place if Worcestershire is to play its part in meeting the global energy challenge.
- 1.4. Renewable energy is just one component of an energy hierarchy that. If this hierarchy is put into practice, Worcestershire's contribution to climate change can be reduced and our homes and businesses can be better protected from rising energy prices and uncertain security of supply.

2. Introduction

***"Businesses generating their own energy can create new revenue streams, reduce exposure to price uncertainty, benefit from government incentives and help ensure long-term revenue structures."*¹**

- 2.1. Renewable energy is expected to continue to be *"the fastest growing class of energy"*² and could help Worcestershire realise its aspirations to become a leading green economy. From the County Council to individual householders, Worcestershire's renewable energy resources are already helping to drive down bills, increase income, and support local employment.
- 2.2. Alongside environmental gains, renewables can lead to increased energy security, cost savings, investment opportunities, job creation, and business diversification.
- 2.3. Worcestershire is dependent on centralised power generation to meet its electricity needs, but as older plant closes down, there is an increasing need for additional supplies. The National Grid³ recognises that *"electricity margins are tighter than they have been for a number of years"*. The need for more energy from more sources is urgent, and an increase in distributed generation must be part of a package of measures to increase our energy security. Appropriate dispersed generation can help to stabilise the balance between supply and demand.
- 2.4. This research paper identifies the benefits of renewable energy in Worcestershire, as well as some of the potential risks. It provides guidance for all those involved in the planning and delivery of renewable energy at the larger than domestic scale, and may also be of interest to communities and individuals seeking to develop their own projects, respond to the plans of others, or simply find out what renewables development could mean for their local area. It is non-statutory and is not part of any Development Plan. As with other relevant issues, it may be a material consideration in planning decisions, depending on circumstances.
- 2.5. Renewable energy - as with other types of development - can be controversial; people have legitimate concerns over development scale and detrimental impacts on their environment, health and amenity. But most renewable energy projects have both positive and negative impacts, and this research paper considers how appropriate renewable energy development can be encouraged, whilst recognising that planning decisions must take all relevant issues into account. It provides guidance to inform policy/decision-makers, focused on the planning system.

¹ Edie newsroom (22 January 2013) Businesses to profit from growing renewable generation market

² BP (January 2014) Energy Outlook 2035

³ National Grid (October 2014) Winter Outlook 2014/15

3. Background

- 3.1. Worcestershire generates relatively small amounts of renewable heat and electricity. By relying on fossil fuels from outside the county, the local economy misses out on the jobs and revenues that can come from generating and supplying energy. Conventional large-scale generation and transmission can provide economies of scale, but can be wasteful, and greatest efficiency is often achieved through harnessing local resources for local use. Infrastructure required for both conventional and renewable generation will have impacts on surrounding areas.
- 3.2. Used wisely, Worcestershire's assets can not only make money for the county, but can also support our thriving environment and communities. With careful planning, we can begin to realise the benefits of local energy, using resources intelligently and saving us money. This means energy generation closer to where it's needed and infrastructure sized, located and designed to match users' needs.
- 3.3. Some renewables projects are philanthropic or environmentally-driven, but the main objective for most is an attractive financial return. Reduced expenditure on energy, together with the income from energy production, are obvious incentives, but the full range of financial benefits extends to direct, indirect and induced multipliers in the local economy (discussed further in Section 6).

Scope

- 3.4. This research paper considers the impacts of decentralised and 'larger-scale' renewable energy (referring here to any scheme more than merely domestic in nature). Larger-scale projects generate the greatest controversy and provide the greatest challenge to local planning authorities.
- 3.5. The paper does not address energy efficiency or micro-generation, which are covered in national/local policy. However, it is recognised that these are key elements of the energy hierarchy. Indeed, the importance of micro-generation can be seen in the level of growth in Worcestershire – especially of roof-mounted solar PV panels - under a very favourable financial framework. Solar costs are anticipated to continue to fall⁴, but payments for energy generated are also being reduced as the government seeks to ensure that Feed in Tariff and Renewable Heat Incentive funds are spread widely and not consumed by larger projects.
- 3.6. This research paper considers hydro-power, wind turbines, biomass⁵ and solar photovoltaic panels. It also includes deep geothermal energy, but this is a relatively unknown technology in Worcestershire, and is rare across the UK.

⁴ Citigroup (July 2014) Energy 2020

⁵ Biomass includes virgin wood from forestry, arboricultural activities or from wood processing; energy crops; agricultural residues; food waste; and industrial waste and co-products from manufacturing and industrial processes (although waste is excluded from this research paper – see section 3.7). Source: www.biomassenergycentre.org.uk.

Reports^{6,7} identify an area including much of Worcestershire as a potential source of viable geothermal extraction for low-temperature heating applications; research into this potential will continue to be monitored. This research paper does not consider energy for transport (e.g. biofuels), because renewable transport presents a range of specific challenges that are best addressed through dedicated guidance.

- 3.7. While waste can make a valuable contribution to renewable energy, it is excluded here. Policy and guidance on waste is covered elsewhere (e.g. *Joint Municipal Waste Management Strategy* and *Waste Core Strategy*) and including waste issues in this research paper would risk duplication.
- 3.8. This research paper does not discuss the specific characteristics of each respective technology in detail, as this information is available elsewhere (including through government sources and industry bodies). Generic planning impacts associated with renewables are included in the national Planning Practice Guidance⁸, and more specific local issues may be provided through district-level Local Plans and associated documents.
- 3.9. Any approach to renewables should recognise the energy hierarchy (see Figure 1 below). The biggest benefit of reducing emissions and saving money comes from reducing energy use and improving efficiency, through measures such as intelligent controls and insulation. These measures are not within the remit of this research paper, but are vital elements of the green economy and are being progressed through a range of WCC and partnership approaches across Worcestershire.

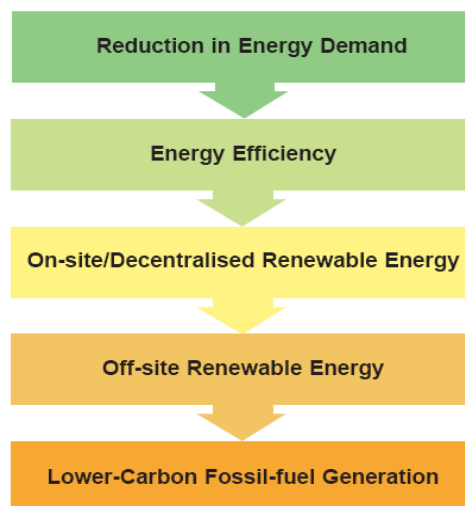


Figure 1: The energy hierarchy

⁶ Keith Rollin, BGS Low-temperature geothermal energy: Modelling the potential resource in the UK.

⁷ Sinclair Knight Merz in association with the Renewable Energy Association (May 2012) Geothermal Energy Potential: Great Britain and Northern Ireland.

⁸ <http://planningguidance.planningportal.gov.uk/>

4. Why Worcestershire?

- 4.1. Worcestershire's landlocked position and relatively limited resources mean it is unlikely to be a leading producer of renewable energy in the national context. But this is no reason not to pursue viable schemes; appropriate local development can make a big difference through helping to meet local needs, responding to local circumstances, and improving local lives and livelihoods.
- 4.2. As of October 2015, there was around 115MW of installed or consented 'larger-scale' (0.5MW or greater) renewable energy capacity in the county, mainly derived from solar photovoltaic panels. There was also a further 40MW of capacity awaiting a planning decision.
- 4.3. This research paper considers how deployment might be increased, and how to guide and respond to future projects and ensure the people of Worcestershire are well-informed.

Opportunities

- 4.4. An assessment of how much renewable energy could be generated within Worcestershire, and where, found that 3.5% of Worcestershire's energy consumption could theoretically be met by major schemes by 2026⁹. The assessment also identified broad locations where renewables might be capable of being developed. Both the targets and locations remain consultant's technical evidence, and are not endorsed by Worcestershire's county or district councils.
- 4.5. There is sufficient resource in Worcestershire to develop renewables at the larger scale, but the viability of any opportunity will depend on site-specific conditions, including available capacity to connect to distribution networks, and the investment landscape at that point in time (including any financial incentives, which can vary in scale and duration according to what type of project is brought forward, where, and when). Whilst a range of planning and economic drivers are in place to make this happen, the gap between rhetoric and actual delivery remains wide. This research paper outlines the reasons for low take-up of renewables, and sets out how these might be better understood and overcome.

⁹ IT Power (November 2008) Worcestershire County Council Renewable Energy Study, Final Report. The assessment's target date of 2026 was based on the end date of the former West Midlands Regional Strategy.

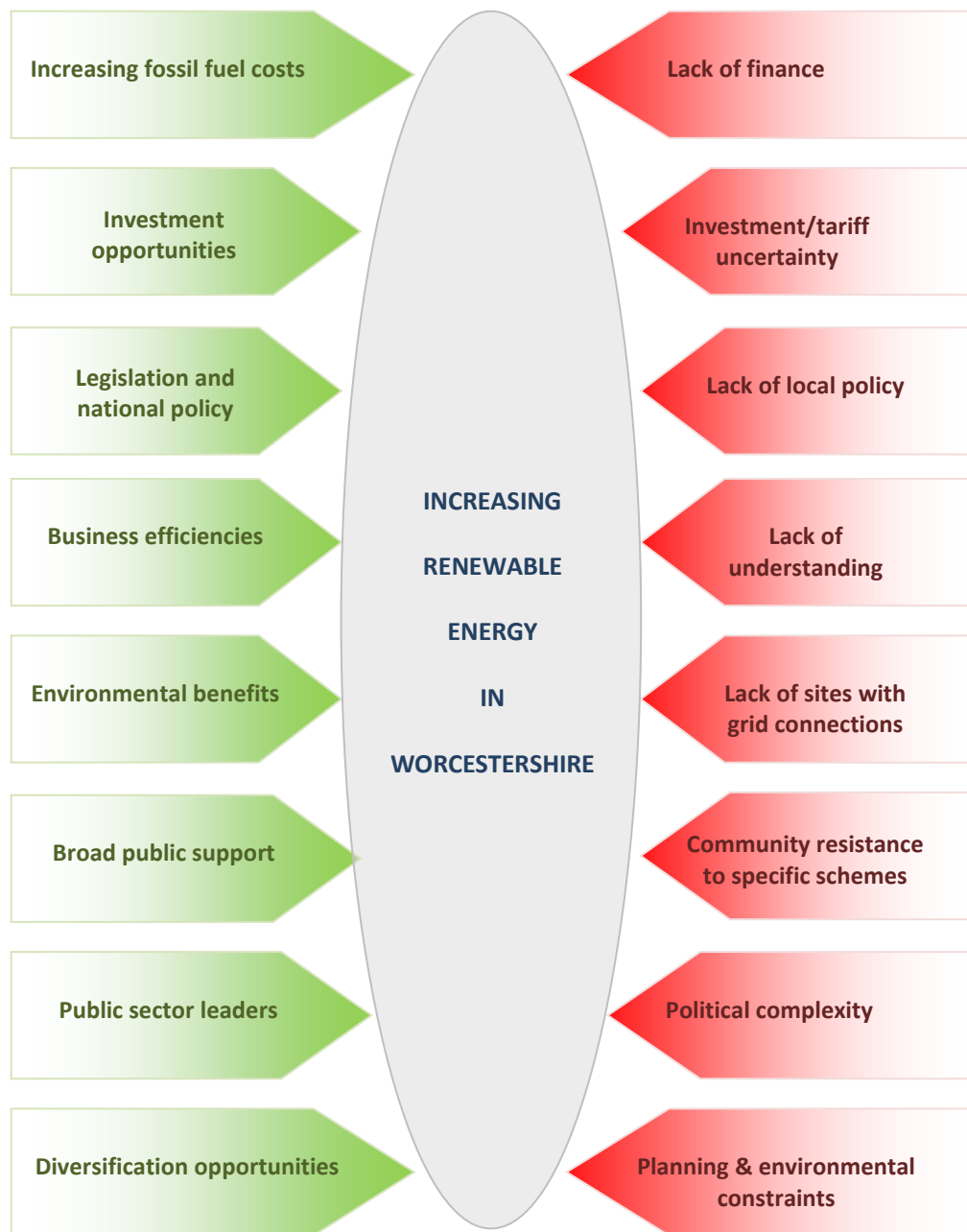


Figure 2: Driving and restraining forces on renewable energy in Worcestershire

4.7 Figure 2 illustrates some of the factors that can influence the uptake of renewable energy in Worcestershire. The following sections explore some of these in more detail to identify ways in which the restraining forces can be minimised, whilst recognising that some restrictions will always be necessary to protect the county from inappropriate development.

5. Policy context

5.1. Growth of renewable energy is strongly supported at the international, national and local level through legislation, policy and guidance.

- [Directive 2009/28/EC on the promotion of the use of energy from renewable sources](#) establishes a common framework for producing and promoting renewable energy. It sets a UK target of 15% for the share of energy from renewable sources in gross final energy consumption, by 2020.
- The [Climate Change Act 2008](#) sets a legally-binding target to reduce UK greenhouse gas emissions by at least 80% (from a 1990 baseline) by 2050.
- The [UK Renewable Energy Roadmap 2011](#) and [Update 2013](#) confirm the government's goal of ensuring *"that 15% of our energy demand is met from renewable sources by 2020 in the most cost effective way"*. The Roadmap includes actions to provide long term certainty for investors in onshore wind; to deliver biomass electricity through measures to support long-term waste fuel supplies including through possible landfill restrictions on waste wood; to support biomass heat and biomethane injection into the grid through tariff/payment schemes; and to reduce regulatory burdens on anaerobic digestion plant.
- The [UK Bioenergy Strategy](#) *"defines a set of low-risk energy deployment pathways ... to develop a bioenergy sector that contributes towards our longer term decarbonisation targets as well as 2020 renewable objectives"*. The strategy includes provision for using waste (end-of-life materials) where it maximises carbon and cost effectiveness, and where consistent with the waste hierarchy; biomass to heat buildings and industry (process heating), through either biomass boilers or biomethane; and use of sustainable biomass for electricity as a transitional fuel. In addition, combined heat and power generation offers more efficient use of biomass resources.
- The [UK Solar PV Strategy Part 1](#) sets out four guiding principles for solar PV support: allow cost-effective projects to proceed and to make a cost-effective contribution to emission objectives; deliver genuine carbon reductions that help meet UK renewables targets; ensure proposals are appropriately sited, give proper weight to environmental considerations and local amenity, and provide opportunities for local communities to influence decisions that affect them; and assess and respond to the impacts of deployment on: grid systems balancing; grid connectivity; and financial incentives. [Part 2](#) focuses on the government's ambition for key market segments, *"particularly opening up deployment on the roofs of commercial, industrial and larger public buildings"*.

- The [Community Energy Strategy](#) makes clear that community-led action *"can often tackle challenges more effectively than government alone, developing solutions to meet local needs, and involving local people. Putting communities in control of the energy they use can have wider benefits such as building stronger communities, creating local jobs, improving health and supporting local economic growth"*.
- The Worcestershire Partnership's [Climate Change Strategy 2012-20](#) sets out how the Partnership will *"work with communities, businesses and the public sector to make the transition to a low carbon economy"* including through *"helping to realise the county's potential to harness the power of renewable energy, recognising the importance of public perception"*. The Strategy includes the target to *"Treble the amount of energy generated in the county from renewables, including energy from waste, by 2020 (from 2012 levels)"*.
- The Worcestershire [Local Enterprise Partnership's Strategic Economic Plan](#) recognises 'agri-tech' (including green energy) as one of the county's three growth sectors. Among Worcestershire's key infrastructure issues that need to be addressed, it identifies an over-reliance on energy supplies from outside the county and an over-reliance on energy from non-sustainable sources. As part of the SEP's aspirations to create a world-class business location, it recognises that *"renewable energy generation has the potential to relieve pressures on the existing energy infrastructure, as well as providing potential employment opportunities and cost reductions"*.
- Taking a longer-term look at the county's future, [Worcestershire's Next Generation Plan](#)¹⁰ recognises the need to *"invest in our environment and use our resources wisely"*. The Plan's priorities, including 'Environment' and 'Prosperity', support renewable energy; the Plan envisages *"a radically different and varied economy"* in Worcestershire, where green technology and green businesses are encouraged in order to grow economic prosperity. The Plan recognises young people's concerns about our use of energy, and that they want to see alternative, renewable sources and green technologies becoming the norm, with Worcestershire becoming famous for green technology. Specific *Next Generation Plan* commitments include:
 - **Commitment 18 – Dramatically reduce carbon emissions**
We will seek other forms of green energy and support the development of solar, wind and hydro-electric energy where this supports this objective.
 - **Commitment 21 – Reduce the creation of waste**
We will actively incentivise recycling and reduction of waste including where appropriate use of new technologies. We will explore energy extraction from waste material.

¹⁰ Worcestershire's *Next Generation Plan* has been produced by the Shenstone Group (leaders from Worcestershire's businesses, voluntary, community, and public sector organisations). It seeks to develop a picture of what Worcestershire could look like in the future, and sets out a series of commitments to help achieve common aspirations for Worcestershire in 2040.

- **Commitment 24 – Encourage green technology and green businesses in order to grow our economic prosperity**

We will ensure that Worcestershire benefits from renewable and environmental technologies.

5.2. Planning applications are determined in accordance with the 'development plan' (comprising county and district-level Core Strategies/Local Plans, and any 'saved' policies from older plans, as well as parish-level Neighbourhood Plans) and any other material considerations. These material considerations will vary on a case-by-case basis but will include the National Planning Policy Framework and Planning Practice Guidance.

- The [National Planning Policy Framework](#) sets out government policy on planning for renewables. It strongly supports sustainable development and calls upon local planning authorities to "*recognise the responsibility on all communities to contribute to energy generation from renewable or low-carbon sources*"¹¹.
- [Planning Practice Guidance](#) web-based resource includes specific guidance on developing a strategy for renewable and low carbon energy and particular planning considerations for hydropower, active solar technology, solar farms and wind turbines.
- At the local level, the county council and each of Worcestershire's city, district and borough councils produces (individually or in partnership with adjoining authorities) a **Core Strategy/Local Plan** which sets out the overall approach to planning for renewable energy in their respective areas. This may be supplemented by further policy and/or guidance within accompanying documents.
- **Neighbourhood Plans** are prepared by parish or town councils (or neighbourhood forums where there is no parish or town council) and may reflect the local community's aspirations for renewable energy through allocations or other policies.

5.3. A cohesive approach to renewables needs cross-sector support, and can only be fully effective across the county if it responds to the needs of the county and district councils, the wider public sector, developers, businesses and communities. This research paper is therefore informed by a wide range of policy, including district-level initiatives such as Wychavon's [Intelligently Green](#) programme¹², which has a number of actions specific to Wychavon district, including:

- Working with Worcestershire County Council to market Wychavon as an attractive location for renewable energy generation and green businesses, and ensuring that policies are in place to assist in the delivery of appropriate schemes; and
- Exploring the potential and demand for increasing the number of anaerobic digesters within Wychavon by working with local growers, interested community groups, Worcestershire County Council and others.

¹¹ Department for Communities and Local Government (2012), National Planning Policy Framework, paragraph 97

¹² Wychavon District Council (July 2012) Intelligently Green Plan

6. Supporting the green economy

6.1 Job creation

- 6.1.1. Increasing renewable energy creates jobs through manufacturing components, planning/installing/servicing plant, managing/operating supply chains, etc. Some of these jobs may be based outside the county - or even outside the country - but some local employment is likely to be supported. It can also generate induced economic multiplier effects by re-circulating income in the local area.
- 6.1.2. Biomass can be especially benefit to local employment. Increasing biomass energy can stimulate local forestry operations and encourage under-managed woodland into active management. The potential resource in Worcestershire is significant, with about 10% of the county covered by woodland. However, only around 50% of this woodland is actively managed¹³ (producing wood); the remaining 50% is under-managed or unmanaged (producing much less than its potential, or not producing any wood at all). Only 5% of Worcestershire's woodland is managed (owned or leased) by the Forestry Commission. Effective management can increase forestry-related jobs, and increase business for hauliers and installers. An industry study¹⁴ found that by 2020, the GVA per MW of installed capacity of woodfuel in England could be £200,000, with 2.9 jobs created per MW. A study for the Marches¹⁵ suggests that bringing woodland in that area into management for energy could provide 96 FTE jobs.
- 6.1.3. Use of timber from existing woodland can play an important role in sustaining rural communities, providing employment opportunities in timber harvesting and transport and supply chains. Greater use of locally-sourced biomass can help to support the forestry sector and offer valuable diversification opportunities for farmers.
- 6.1.4. 15.9% of workers in Worcestershire are employed in the manufacturing sector¹⁶ - a higher proportion than in the region (13.3%) and in England (9.4%). Local knowledge and anecdotal evidence indicate a large number of environmental technology companies operating in the county (including some very large multi-national employers), many of which manufacture and install low-carbon/renewable technologies. However, there is no comprehensive data on the precise size and nature of the industrial capacity and skills base in the county, and there are no reliable projections of the levels of investment that renewable energy design and manufacture could bring.

¹³ Forestry Commission communication

¹⁴ Centre for Economics and Business Research report for the Forestry Commission (June 2010) The economic value of the woodfuel industry to the UK economy by 2020

¹⁵ Martin Glynn (May 2013) Marches Timber Study: Building the Evidence Base for a Woodland Enterprise Zone

¹⁶ Worcestershire County Council (2010) Worcestershire County Economic Assessment 2010-2011

- 6.1.5. The Worcestershire Economic Strategy¹⁷ identifies "*Low Carbon Industrial and business opportunities*" as a sector with "*potential opportunities for economic and employment growth and where actions can have a real impact [and in which] Worcestershire has a significant number of businesses*". These low carbon opportunities have "*potential for innovation, job creation and growth in the transition to a low carbon, climate-resilient economy*" but this depends on the strategic role of government and "*massive dynamism in the private sector*".

6.2 Expertise in manufacturing and research and development

- 6.2.1. Worcestershire innovators/academic institutions could develop expertise in manufacturing and research and development. A skilled workforce to implement a shift to low-carbon energy will be a valuable asset to the county, with demand for such employees and expertise due to increase.

6.3 Increased energy security and reliability of supply

- 6.3.1. Energy security is crucial, especially in rural areas of the county where industrial expansion could be frustrated by inadequate supplies. Increasing installed energy capacity through distributed generation closer to the point of use can offset the need for conventional energy. Diversifying supplies helps to provide insurance against volatile energy prices or shortages, and localised generation means less power is wasted through transmission.
- 6.3.2. Local supplies of energy can be driven by increasing fuel costs. As an example, rising heating costs, combined with incentive payments for renewable fuels, has led to a growth in the use of smaller-scale woodfuel heating installations. Although this research document is not directly concerned with the domestic-scale, the cumulative impact of this increased demand is a further driver to develop local supplies.
- 6.3.3. To benefit from tariff payments for electricity, and to potentially play a role in balancing the wider grid system, renewable energy installations must be connected to the distribution network. This can only be achieved if the infrastructure has the capacity to accommodate the loadings. Certain renewables can require specific upgrades and strengthening works, depending on their characteristics and the network in that location. Ultimately, the distribution network operator may not be able to connect all projects, or the cost of making such connections - which is borne by the developer - may be prohibitive. As such, liaison with the DNO over the potential to connect is crucial.

¹⁷ Worcestershire Partnership (June 2010) An Economic Strategy for Worcestershire 2010 – 2020

6.4 Income for individuals, communities, and councils, not just for 'big business'

- 6.4.1. Renewable energy does not just benefit big developers. Successful schemes involving local authorities and/or members of the local community can help to create a sense of ownership, and can provide financial and other rewards. For projects developed wholly or partly by communities, this could involve taking a financial stake in the development, and in some cases could involve benefitting from a direct connection to the electricity and/or heat produced.
- 6.4.2. Local-level projects also *"qualify for funding that is only available to community groups or charities"*¹⁸. Local authorities could have a role in supporting community schemes through direct development or through providing resources (financial or in-kind) to specific projects. The government's Planning Practice Guidance states that *"Local planning authorities may wish to establish policies which give positive weight to renewable and low carbon energy initiatives which have clear evidence of local community involvement and leadership"*.

Case study: Woolhope Woodheat

Woolhope Woodheat is a community cooperative based in south Herefordshire that installs wood fuel boilers which supply heat at a reduced price over fossil fuel to hard to heat buildings. The boilers are powered with woodchip from local, sustainable woodlands, and the co-op works to bring neglected local woodland back into management.



Further information is available at <http://woolhopewoodheat.org.uk/about/>

- 6.4.3. Community buy-in can help to avoid animosity between 'big developers' and local people. One report¹⁹ suggests that *"community-run schemes, or those run as a joint venture with a community organisation, are more likely to win the local*

¹⁸ Department for Energy and Climate Change: Community Energy Online

¹⁹ S Wylor and P Blond, ResPublica and NESTA (Nov 2010) To Buy, to Bid, to Build: Community Rights for an Asset Owning Democracy

community support necessary to get a project off the ground. Community energy...looks set to rapidly become a key area for community asset expansion". Localism - in particular through Neighbourhood Plans – provides opportunities to find out local levels of interest and to take forward local projects. Successful *Transition* groups already operate in the county and are valuable in exploring and increasing community interest. DECC states that an effective approach is *"to mobilise existing community groups and networks to broaden the impact of the council's low carbon and renewable energy programme"* and that whilst the local authority/LSP can act as a community leader, *"it is also important to identify leaders and advocates within the community"*.

- 6.4.1 Community ownership of land and/or renewables can provide rental income and/or tariff payments. Income from renewable energy projects can be used to maintain local assets such as village halls. Procurement of renewables by local community groups should be linked to a broader programme of energy efficiency, which could see local buildings insulated and upgraded with improved energy management systems. Grants may be available to support such work, and the savings on energy costs can help to ensure the viability of local buildings as ongoing community resources.
- 6.4.2 It is not just through ownership of projects that communities can benefit. Payments by developers to communities that host private developments can also make a valued contribution to local infrastructure.
- 6.4.3 Where large-scale renewables are developed by private companies, payments are often made by developers into a community fund, allowing local people to share in the benefits of development in their area. The payments do not influence planning decisions (the Localism Act's provision for *"local finance considerations"* to be taken into account in decision-making does not apply here). Guidance²⁰ makes clear that community benefit negotiations should be kept separate from the planning process, stating that *"Planning legislation prevents local planning authorities from specifically seeking developer contributions where they are not considered necessary to make the development acceptable in planning terms. Within this context, community benefits are not seen as relevant to deciding whether a development is granted planning permission"*. There is no standard or guaranteed formula dictating how much funding a given project should contribute, but for wind turbines the renewables trade body RenewableUK has responded to the government in committing to an established formula²¹. The protocol states that *"Signatories to the Protocol agree to provide community benefit schemes in connection with eligible onshore wind schemes, of no less than £5,000 per MW per year or benefits-in-kind to an equivalent value. The annual contribution (or equivalent) will be indexed for the operational lifetime of the project. The Protocol applies to onshore wind projects of 5MW or above in England only"*.
- 6.4.4. Different renewable energy investors will have different expectations and requirements. Business interests will require a competitive return on their

²⁰ DECC (October 2014) Community Benefits from Onshore Wind Developments: Best Practice Guidance for England

²¹ RenewableUK (October 2013) Onshore Wind: Our Community Commitment

investment, whereas domestic users and community groups may simply be looking for a saving on their energy bills. Local authorities, too, may have different expectations, and councils' ability to sell electricity and heat makes energy generation on council land and buildings a viable proposition in some cases. It has been stated that *"public sector organisations, on account of having access to cheaper capital and typically taking a longer term view of investments, may accept an investment at 2-3% lower IRR than the private sector average"*²².

- 6.4.5. Feed-in Tariffs (FiT) incentivise renewables by guaranteeing payments for electricity exported to the grid. Research²³ suggests that FiTs make most small-medium scale renewables attractive investments, but it is noted that this will depend on the level and duration of FiT available at a given time. The research cautions that *"many applications are only attractive investments in the right context"* and that *"the variation of the cost of grid connection of a large community wind turbine or the civil engineering costs of a small river hydro-scheme can turn an otherwise strong scheme with a good return into one which is marginal or unattractive"*. The long-term certainty sought by many developers can be compromised by tariff reviews, and at the time of writing the Feed-in Tariff rates may be severely reduced from January 2016, which could lead to many projects no longer being viable.
- 6.4.6. Alongside the feed-in tariff for electricity, the Renewable Heat Incentive (RHI) provides a similar payment arrangement for renewable heat energy, such as that generated from biomass.

6.5 Reduced fuel poverty

- 6.5.1 Worcester's total annual household energy bill is up to £313 million²⁴, and based on past trends, these costs may well increase. Some price rises are due to financial support schemes for renewables (feed-in tariff payments, for example, are indirectly met through customers' bills). One way to reduce expenditure on energy is to take energy efficiency measures, but increases can also be offset through the financial benefits of installing renewable energy. Where there is no access to conventional fuels (such as off-grid properties), renewables can reduce fuel costs, especially once capital costs are paid for.
- 6.5.2 In some circumstances, specific users may be served by 'private wire' heat and/or power networks. These are closed networks that do not connect to the national grid, and are usually found in more isolated areas. Some users who depend upon an uninterrupted supply may be connected to the grid while also having a private backup in case of grid outages. While private networks can bypass the need to purchase energy from utility companies, a grid connection is

²² Arup/Friends of the Earth (October 2010) Small Scale Renewable Energy Study, FIT for the Future: Case studies of potential applications of the UK feed-in tariff for small scale renewable electricity

²³ Ibid

²⁴ Calculated from the provisional average 2014 UK domestic bills across all payment types for electricity (£592) and gas (£753), multiplied by the latest available (2006-based) household projection figures for Worcester's (233,000 households). DECC/National Statistics: Quarterly Energy Prices (December 2014)

needed to benefit from some incentives (such as the feed-in tariff) and, as such, the absence of such a connection could make many schemes unviable.

6.6 Putting Worcestershire's green economy on the map

- 6.6.1 A forward-looking approach to renewables could help to promote Worcestershire as an environmentally-conscious county where green business is embraced and green technologies can prosper. While Worcestershire was not among the early adopters of renewables prior to the feed-in tariff, there are examples of energy innovation from further back in history; a combined steam and water-powered electricity generating station was built in Worcester in 1894 and was among the first of its kind. In more recent years, there has once again been significant investment in generating energy within the county. Three years ago, there was around 10MW of installed or consented larger-scale renewable energy capacity in Worcestershire; this figure now stands at around 116MW.
- 6.6.2 The Worcestershire Local Enterprise Partnership's Strategic Economic Plan²⁵ recognises 'agri-tech' (which includes green energy) as one of the county's three growth sectors. Among opportunities for Worcestershire businesses it identifies "*cross-sector efficiency in renewable energy/energy*", while the increasing cost of energy is seen as a business threat. Among the key infrastructure issues to address within Worcestershire, the SEP identifies an over-reliance on energy supplies from outside the LEP area, and an over-reliance on energy from non-sustainable sources. As part of the SEP's aspirations to create a world-class business location, it recognises that "*renewable energy generation has the potential to relieve pressures on the existing energy infrastructure, as well as providing potential employment opportunities and cost reductions*".
- 6.6.3 This high level of support for renewable energy demonstrates Worcestershire's commitment to an ambitious approach, and as the cost of conventional energy continues to increase, the economic case for investing in renewables may continue to strengthen.

²⁵ Worcestershire Local Enterprise Partnership (March 2014) Strategic Economic Plan

Case study: Hydropower scheme on the River Avon

A hydro-power scheme has been developed on the River Avon just outside Pershore. The project, which has involved many partners, links to the local leisure centre.

Wychavon District Council invested £300,000 in the scheme. In return for a share of the risks, this will generate up to 10% return for the council, some of which will go towards local community initiatives. The electricity generated goes into running Pershore leisure centre and should result in annual savings of £11,000 a year on the leisure centre's energy bills. The work around the scheme will help to reduce flooding and create new wildlife habitats.



6.7 Increased income for landowners

- 6.7.1 Renewable energy can provide income for landowners, through profits from energy sales and/or through rental of land. Any money going to local recipients could be re-circulated in the local community, increasing the multiplier effect.

6.8 Farm diversification/revitalisation of rural economies.

- 6.8.1 Renewable energy can provide additional/alternative sources of income and employment in the rural economy. Many farms are installing solar PV, wind turbines, and biomass plants. The NFU estimates that *"in 2012, one in five NFU members produced clean electricity from the sun and wind"*²⁶. Farm diversification includes production of energy crops to supply biomass schemes.
- 6.8.2 The growth of large-scale solar farms has led the government to re-emphasise its desire to see solar PV developed on commercial rooftops where possible²⁷. This is partly to prevent solar farms taking up too high a proportion of available tariff payments, and partly in response to concerns regarding loss of agricultural land. The government has confirmed²⁸ that since January 2015, *"farmers who choose to use fields for solar panels will not be eligible for any farm subsidy payments available through the Common Agricultural Policy for that land"*.
- 6.8.3 Faced with increasing costs, the agricultural/horticultural sector could improve business resilience and competitiveness by installing renewables. A 2011 study²⁹ found that *"energy costs and pesticide regulation/approval are unsurprisingly perceived to be the main threats to growers' businesses as they represent a large cost and have a major influence on business performance"*. Industries well-placed to provide fuel stocks, and/or who have heat/electricity/CO₂ demands matching the technologies' outputs, can help to offset rising energy costs.
- 6.8.4 Anaerobic digestion (AD) plants are particularly suited to on-farm uses, as feedstock is often available on-site. Larger, 'centralised' AD installations can gather feedstock from a number of farms (or other sources) in the wider area. The gas produced by AD can be used in a variety of ways: it can be burned on-site for heating, it can be used to generate electricity, or it can be cleaned and injected into the gas grid.

²⁶ NFU (26 Feb 2013) Renewables lifeline for struggling farmers

²⁷ Department of Energy & Climate Change (April 2014) UK Solar PV Strategy Part 2: Delivering a Brighter Future

²⁸ Rt Hon Elizabeth Truss MP (19 October 2014) Subsidies for solar farms to be cut to help safeguard farmland

²⁹ European Food and Farming Partnership (2011) Getting to the heart of Horticulture: Opportunities and challenges for the horticulture and potato sectors in the West Midlands

Case study: Anaerobic Digester in the Vale of Evesham

Evesham Vale Growers have reduced costs and improved efficiency through installing an anaerobic digester at their Fladbury tomato glasshouses in the Vale of Evesham.

The digester uses green waste and energy crops to generate low-carbon gas and 0.5MW of electricity, providing heat and light for the glasshouses, and allowing surplus energy to be exported to the grid. To further join up the process, CO₂ produced by the plant is used on site to improve tomato production.

Worcestershire's Local Enterprise Partnership recognises the economic importance of horticulture in the Vale, and has supported the anaerobic digester and other renewable/low-carbon projects in the area. These developments support local businesses and help to put Worcestershire's green economy on the map.



7 Environmental benefits

7.1 Reducing carbon emissions

7.1.1 The environmental benefits of renewable energy schemes may be felt locally, as well as contributing to national and international carbon emissions targets. In the long term, a reduction in carbon emissions is required to contribute to a deceleration in the rate of global climate change. Generating a greater proportion of energy from renewable sources can make a valuable contribution towards reducing Worcestershire's CO₂ emissions. Tables 1 and 2 below show the latest recorded levels of CO₂ emissions and electricity consumption in the county.

Table 1 Total CO₂ emissions (thousands of tonnes) 2006-2012³⁰

	2006	2007	2008	2009	2010	2011	2012
Bromsgrove	928	917	885	825	845	785	812
Malvern Hills	734	733	703	659	683	636	635
Redditch	553	537	515	447	469	427	441
Worcester	590	567	543	497	520	487	493
Wychavon	1,433	1,394	1,359	1,284	1,327	1,221	1,239
Wyre Forest	680	667	636	569	603	567	581
Worcestershire	4,918	4,815	4,640	4,282	4,447	4,123	4,200

Table 2 Total Final Electricity Consumption (GWh) 2007-2013³¹

	2007	2008	2009	2010	2011	2012	2013
Bromsgrove	345	337	325	329	322	320	320
Malvern Hills	324	311	291	291	291	289	296
Redditch	409	409	366	374	368	362	361
Worcester	465	427	428	428	445	429	435
Wychavon	670	684	657	657	614	614	615
Wyre Forest	449	417	366	372	395	378	382
Worcestershire	2,661	2,585	2,432	2,450	2,436	2,392	2,410

7.1.2 The figures presented in Tables 1 and 2 demonstrate an overall downward trajectory in carbon dioxide emissions between 2006 and 2012, despite a net population increase of some 15,000 over the same period³². This suggests improvements in energy efficiency and generation are having a positive impact, and renewable energy will continue to play a key role as part of a wider package of climate change mitigation.

³⁰ Department of Energy & Climate Change (2014) UK local authority and regional carbon dioxide emissions national statistics: 2005-2012

³¹ Department of Energy & Climate Change (2015) Total final energy consumption at regional and local authority level

³² Worcestershire County Council, Mid-2012 Worcestershire County and Districts Population Estimates and Comparison of ONS Mid-Year Estimates, 2001-11 for Worcestershire County by 5-year Age Group.

7.1.3 Biomass is unique among renewable technologies in requiring a continuous supply of feedstock. Carbon emitted by burning biomass or biofuels is balanced overall by the carbon removed from the atmosphere by the crops as they grow. However, the carbon and environmental costs of growing, harvesting, transport and processing, need to be taken into account. To help to ensure that bioenergy delivers genuine carbon savings whilst minimising environmental impacts, it should be subject to appropriate certification where available. The UK Woodland Assurance Standard and Forest Stewardship Council certification, for example, applies to woody biomass.

7.2 Creating new environments

7.2.1 Renewable energy schemes should be carefully designed and sited to avoid or minimise risk to habitats. Poorly planned and maintained developments could have a negative impact on wildlife, but appropriate projects can have beneficial ecological effects through creating or maintaining habitats. This could be achieved through, for example, the expansion of biomass or energy crops (although this needs careful consideration to minimise negative impacts from monocultures), or by providing species-rich habitat within the secure and relatively undisturbed confines of a solar park. Financial benefits arising from renewables, which can include community payments, may also offer additional opportunities to improve local natural and built environments.

7.3 Managing existing environments

7.3.1 In land use terms, a decentralised pattern of energy generation would avoid the vast land-take of conventional power stations, although the footprint of larger biomass plants can be substantial. Wind turbines, large-scale solar farms, and hydro-power installations can all be designed to work with the natural environment; wind turbines, though often covering large areas overall, have relatively small footprints, allowing land to remain largely untouched and available for agriculture. Because solar farms are raised off the ground, grazing can still occur around and underneath the panels (which can also provide valuable shading). Hydro-power installations can be designed to ensure that fish are safely routed away from turbines.

7.3.2 Any large-scale project is likely to have some degree of impact on the surrounding environment, and there are a number of issues which would need to be considered either through the formal Environmental Impact Assessment process (if required), and/or through the development control process. Biomass includes such issues as the impact on water quality and resources. Biomass plants, like other power stations, may need a reliable supply of water, and this could impact on the aquatic environment. There may also be permitting requirements separate to the planning system which must be satisfied, including, inter-alia, water abstraction and emissions control regimes.

7.3.3 Demand for renewable biomass can lead to changes in woodland management or agriculture practice to meet demand. The government recognises that *“More effective management of our woodlands will also make a long-term contribution to our challenging climate change targets, through reducing reliance on fossil fuels and energy intensive materials”*³³. Some schemes may result in more intensive management to supply feedstock to a biomass plant. This may foster biodiversity, creating more attractive breeding or feeding habitats for certain species. Sensitive harvesting methods must be employed to respect the biodiversity, scale and cultural importance of the site, especially with ancient woodlands. It is vital that management of ancient woodland, long-established plantations and coppice woodland for the production of wood fuel should be grounded in high standards of management for protection and enhancement of biodiversity. In ancient woodland it is important that plenty of dead wood remains, that veteran trees are protected and that coppicing is only undertaken after expert advice. Adherence to certification standards under the Forest Stewardship Scheme or UK Woodland Assurance Scheme would help to prevent inappropriate harvesting operations. This should be regulated through the Woodland Grant Scheme and the felling licence system to ensure that these woods are restored and managed in a sensitive way.

7.4 Reducing flooding and/or flood risk

7.4.1 Hydropower schemes can help to regulate river flows and minimise flooding. Projects are subject to stringent controls over their effect on watercourses, and the Environment Agency will seek to check that ecological and flooding safeguards are in place. Successful management of biomass can also help to slow run-off through the binding of soils, which can in turn reduce the potential for flooding.

7.5 Air quality improvements

7.5.1 Renewable energy schemes may have indirect benefits in this regard, through the contribution to reduced fossil fuel emissions. Where renewable energy offsets conventional generation, the emissions that would otherwise have been produced as a by-product (excluding any necessary back-up generation) are also offset. This is the case for most renewables. The burning of biomass generates emissions that need to be carefully managed and monitored.

³³ DEFRA (January 2013) Forestry Policy Statement on the recommendations of the Independent Forestry Panel

8 Social benefits

8.1 Community pride

- 8.1.1 Renewable energy schemes have the potential to foster community pride, especially where the community invests directly in a scheme. On a small scale, this has been seen in recent years by local people helping to increase the sustainability of village halls and community buildings by installing solar panels. Community pride could also be engendered at a larger scale through involvement in bigger projects.
- 8.1.2 The government recognises that developing renewable energy projects can help to increase social cohesion, *"fostering common cause and empowering communities to take action on issues that matter to them"*³⁴.

8.2 Expansion of community capacity

- 8.2.1 Expansion of community capacity to participate in planning (e.g. through involvement in preparation of development briefs, or in negotiations relating to individual planning applications) could increase individuals' skills and knowledge. Neighbourhood Plans offer one mechanism through which people can help to plan for renewable energy in their local area.

8.3 Ground rent and community funding

- 8.3.1 Local community ownership of land and/or a renewable energy installation can provide rental income and/or tariff payments for energy generated. Where large-scale renewables are brought forward by external developers, payments are often made by the developers into a fund for local community use. As stated in section 6.4.3, trade body RenewableUK has a protocol³⁵ which seeks to provide onshore wind community benefit schemes *"of no less than £5,000 per MW per year or benefits-in-kind to an equivalent value"*.

8.4 Improved viability of community assets (e.g. village halls)

- 8.4.1 Income from renewable energy projects can be used to maintain local assets such as village halls. Procuring renewables should be linked to a broader programme of energy efficiency, which could see local buildings being insulated and upgraded with improved energy management systems. Grants may be

³⁴ Department of Energy and Climate Change (2014) Community Energy Strategy: Full Report

³⁵ RenewableUK (2013) Onshore Wind: Our Community Commitment

available to support such work, and the savings on energy costs can help to ensuring the viability of local buildings as ongoing community resources.

8.5 Educational opportunities

- 8.5.1 Renewables can provide an educational resource for all ages, increasing awareness of the benefits and business opportunities that schemes can bring, and fostering an increased sense of environmental stewardship. This in turn could help to encourage a new generation of skilled workers in the green economy. Renewables schemes in schools can provide a learning resource, especially where connected to real-time energy monitors.

8.6 Longer-term health and quality of life benefits

- 8.6.1 Renewable energy has the potential to reduce fuel poverty, and can therefore help to secure longer-term health and quality of life benefits. At the macro level, renewable energy can lead to a reduction in the need for conventional/nuclear power generation with its associated risks and pollution. It remains crucial, however, to ensure that renewables development is progressed in accordance with all relevant regulations to ensure a safe environment.

9 Tackling the barriers

9.1 Lack of capacity in the local distribution network

- 9.1.1 Renewable electricity generation tends to be connected to the local distribution network in order to benefit from feed-in tariff payments. If the installation provides electricity to a building, a network connection allows surplus energy to be used elsewhere when generation exceeds demand. The electricity network, however, was designed to convey centrally-generated energy to end users, rather than taking lots of distributed sources in the other direction.
- 9.1.2 The network is constrained by the capacity of the various assets of which it is comprised, which must only be operated under safe conditions. Where the capacity of the local primary substation would be exceeded, renewable energy projects either cannot connect, or can only be connected under restricted operation (such as having the connection switched off at certain times). Upgrading the distribution network can cost many millions and can take years to complete. If the upgrading is not part of the distribution network operator's planned growth, then the renewable energy developer may need to fund the capacity increases, which could cost more than the value of the project.
- 9.1.3 Maintaining effective dialogue with the district network operator (in Worcestershire, this is Western Power Distribution) and using their new connections assessment process is important, as this can help to identify whether or not capacity exists, and the cost of any upgrade works required.
- 9.1.4 As energy storage develops, the need for grid connections may change, as energy generated from renewables could be used at times other than when it is generated (the electricity generated by solar panels, for example, could be available in the evenings, once the sun has gone down, and when domestic demand may be higher). This is part of a smarter approach to demand management and offers exciting opportunities to change the way energy is used – potentially linking the energy systems of cars with those of buildings.
- 9.1.5 It is possible for renewable energy to be directly connected to energy users through 'private wire' networks. This means that the energy user is independent of the grid (or the private wire may be an additional network, so that either the private wire or the grid can act as a back-up supply when required).
- 9.1.6 As with electricity, gas generated from renewable sources can be used on-site (for example for space or process heating) and/or can be connected to the gas distribution network. If biogas is being injected into the grid, it must first be upgraded to biomethane.

9.2 Lack of evidence

- 9.2.1 Most renewable energy projects are determined through the planning system by district planning authorities³⁶, although where in force, permission is automatically granted for relevant schemes under Neighbourhood Development Orders and Community Right to Build Orders (large schemes, however, are unlikely to fall under these provisions). Each district council has, or is producing, a Local Plan/Core Strategy and associated documents which include policies on renewable energy, in accordance with national planning policy. National and local policies are supportive of renewable energy, subject to appropriate environmental and other safeguards.
- 9.2.2 Delivery of renewable energy is dependent on supportive policy. A comprehensive and up-to-date evidence base can help to inform policy-makers, and a variety of evidence is available to draw upon (including regional heat mapping, decentralised energy studies, and separate regional and county reports into potential renewables capacity). Much of this evidence, however, is strategic; more detailed evidence may be needed for local issues and site-specific energy plans, including any allocation of areas for renewable energy through the plan-making process³⁷.
- 9.2.3 Capacity to undertake local assessments will vary by local planning authority, and a co-ordinated approach at county or larger-than-local level could offer efficiencies.

9.3 Lack of clear criteria

- 9.3.1 As with other developments, certainty is valued by those looking to build renewables and those who may oppose them. There are certain national standards, such as noise limits for wind turbines, which must be met, but developing clear and unambiguous criteria at the local level is not always possible or desirable. The government's Planning Practice Guidance³⁸ states that *"Other than when dealing with set back distances for safety, distance of itself does not necessarily determine whether the impact of a proposal is unacceptable"*.
- 9.3.2 There may always be an element of subjectivity around landscape and visual impact where large-scale schemes are proposed. One way of reducing this is to

³⁶ The county planning authority determines waste developments, which could include an element of renewable energy-from-waste. It also determines its own development on its own land. Very large developments (over 50MW capacity) are currently determined nationally by the National Infrastructure Directorate within the Planning Inspectorate, with the local planning authority being a statutory consultee. However, the government has signalled its intention, in the Queen's Speech 2015, that the forthcoming Energy Bill will set out changes to this regime, such that consenting powers for onshore wind applications over 50MW will be transferred to local planning authorities (see *House of Commons Written Statement on Local Planning* by the Secretary of State for Communities and Local Government on 18 Jun 2015).

³⁷ Paragraph 97 of the National Planning Policy Framework includes a requirement for local planning authorities to *"consider identifying suitable areas for renewable and low carbon energy sources, and supporting infrastructure, where this would help secure the development of such sources."*

³⁸ Planning Practice Guidance (Revision date: 06 March 2014) Developing a strategy for renewable and low carbon energy (Paragraph 008, Reference ID 5-008-20140306)

identify areas more or less capable of accommodating development. Some local planning authorities, including Rugby³⁹ and several South Pennines councils⁴⁰, have commissioned studies to provide such evidence in relation to potential wind turbine locations. From 18 June 2015, however, suitable areas for wind energy development need to have been allocated clearly in a Local or Neighbourhood Plan⁴¹, thereby providing greater certainty to communities over where wind development may or may not happen in their local area.

9.4 Lack of familiarity with renewables

- 9.4.1 To date, there have been very few major renewable energy schemes in Worcestershire. This means the impacts of proposals are often unfamiliar, and can present a challenge to the planning officers and committee members who determine the schemes. The scale and nature of some proposals can be alienating to host communities. These challenges generate additional work for local planning authorities; processing applications requires resources, and specialist support may be required, resulting in delays and cost increases.
- 9.4.2 Site visits can be a valuable engagement tool, and officers and members likely to be determining schemes should take advantage of opportunities to see equivalent projects. Developers could also make provision for post-development site visits to allow others to see their finished projects.

9.5 Community concerns

- 9.5.1 Renewables applications - as with many other types of built development – can be controversial. In general, some people will be supportive, with others wholly opposed. People may have legitimate concerns over a development's scale and whether it will have a detrimental impact on their environment, health and amenity. Those with valid concerns cannot be dismissed as 'NIMBYs'; the need for renewables does not diminish the need for proper assessment of proposals through the planning system, including full consideration of the environmental and health impacts. Because polarised views can lead to a reactive and adversarial approach, there is a need for constructive dialogue, and a greater focus on education and engagement.
- 9.5.2 Most renewable energy projects have both positive and negative impacts. When dealing with contentious developments, there is a need for objectivity and evidence-based projections to enable informed decision-making.
- 9.5.3 The nature of the development process means that people can tend to react to proposals, rather than proactively seeking to engage with and influence schemes from the outset. But there are opportunities for people to give their views on

³⁹ White Consultants for Rugby Borough Council (March 2011) Landscape Capacity Study for Wind Energy Developments

⁴⁰ Julie Martin Associates with Alison Farmer Associates and Countryside for South Pennines authorities (January 2010) Landscape Capacity Study for Wind Energy Developments in the South Pennines

⁴¹ House of Commons (18 June 2015) Written Statement on Local Planning by the Secretary of State for Communities and Local Government.

how they want their areas to develop. This includes getting involved in Local Plan preparation and, increasingly, developing Neighbourhood Plans, in which local people can set out their aspirations for development, including renewable energy, in their area. Once adopted, a Neighbourhood Plan becomes part of the development plan for that locality. Consulting people at the pre-application stage can help to identify concerns and issues before the statutory publication period.

- 9.5.4 Decisions must weigh local and wider impacts against the need to increase renewable energy. For major projects Environmental Impact Assessment (EIA) is required. EIA guidance⁴² states that "*The general public's interest in a major project is often expressed as concern about the possibility of unknown or unforeseen effects. By providing a full analysis of a project's effects, an environmental statement can help to allay fears created by lack of information*".
- 9.5.5 The planning system exists to regulate development in the public interest, and it is essential that legitimate concerns are taken into account in a transparent process. This does not mean, however, that every objection will lead to refusal of permission; a balance must be struck between the benefits of a scheme and its impacts, and decision-makers are bound by national policy and guidance to adopt a "*presumption in favour of sustainable development*"⁴³.
- 9.5.6 The planning system "*does not exist to protect the private interests of one person against the activities of another, although private interests may coincide with the public interest in some cases*"⁴⁴. While specific individual impacts are important to those directly concerned, they may not be valid reasons for refusing schemes. Some commonly-cited reasons for opposing developments include impacts on property prices and rights to a view, which are not generally valid planning considerations⁴⁵. However, distinguishing what is and is not a 'material consideration' will not necessarily overcome concerns; better understanding those concerns allows for an exploration of how they might be reduced or mitigated.
- 9.5.7 A range of ways to find out people's views can be used, including public surveys and specific targeted consultation letters. Mechanisms within the planning process ensure that all but the smallest schemes are subject to consultation, and people can freely assess plans and make their feelings known when proposals come forward. It may not be possible to reach unanimity among all interested parties, but presenting the issues clearly can increase understanding, and show that there are positive reasons for the right renewables in the right places.
- 9.5.8 Local research⁴⁶ shows strong public support for renewable energy in a general sense, but people have specific concerns over each technology. A survey of

⁴² ODPM (now DCLG) (January 2000) Environmental Impact Assessment: guide to procedures

⁴³ DCLG (2012) The National Planning Policy Framework, Paragraph 14

⁴⁴ ODPM (now DCLG) (2005) The Planning System: General Principles states that "*The basic question is not whether owners and occupiers of neighbouring properties would experience financial or other loss from a particular development, but whether the proposal would unacceptably affect amenities and the existing use of land and buildings which ought to be protected in the public interest*".

⁴⁵ Ibid.

⁴⁶ Worcestershire County Council (November 2010) Worcestershire Viewpoint Survey

public attitudes on the development of renewable energy in Worcestershire suggested that support for renewables is strongest at the 'abstract' level, with most people generally supportive of the broad principle, with support falling steadily as locations become more focussed on their local area.

- 9.5.9 The research into public attitudes also revealed specific concerns over impacts such as smell, noise, visual intrusion, etc⁴⁷. This demonstrates that information on both the positive and negative impact of proposals must be accurate to allow informed debate. Large-scale renewable energy schemes can generate considerable interest and often receive widespread coverage in the local media. Coverage which presents a balanced picture of the true nature of renewables can help to dispel fears and improve people's understanding.
- 9.5.10 Whilst some degree of impact from renewable energy may be inevitable, there are commonly-held fears over renewable energy that may not be borne out in reality, and communicating the likely benefits and impacts can help to avoid misunderstanding. Engaging communities before an application is made can provide an opportunity for developers to share their ideas and to hear local people's views. A pro-active approach by developers, local authorities and communities can help to increase understanding and build consensus. A variety of guidance can be called upon to help plan the most appropriate approach to engagement. The RTPI⁴⁸ states that, at pre-application stage, developers should "*research the area and communities, understand what else is happening, what will motivate people, what rumours or fears exist*".
- 9.5.11 The right consultation at the right time provides opportunities to help shape proposals by those likely to be affected. Communities can be engaged at various stages, but consultation should be undertaken whilst there is time to genuinely influence the development; leaving consultation until the point of submission is often too late. Because the size and impact of schemes varies significantly, there is no definitive process appropriate to all circumstances (although there are statutory requirements for pre-application consultation for 'nationally-significant' developments above 50MW⁴⁹ and wind development of at least 2 turbines or where any single turbine has a hub height of 15m or more⁵⁰). A good practice guide⁵¹ provides a comprehensive list of suitable engagement methods.
- 9.5.12 Guidance⁵² cautions that engagement can easily be "*dominated by those who hold strong views*", and that avoiding this requires "*positive planning to...ensure that less vocal members of the community have opportunities to express their opinions and concerns*". Planning Aid seeks to provide free planning support to those who cannot afford professional costs, and may be able to offer assistance.

⁴⁷ Worcestershire County Council (March 2011) Worcestershire Viewpoint Survey November 2010: Analysis of Results

⁴⁸ Planning Aid England/RTPI (2012) Good Practice Guide to Public Engagement in Development Schemes

⁴⁹ In accordance with the Planning Act 2008. Although for wind turbines, the Energy Bill will make provision for decision-making on all on-shore schemes, of any scale, the responsibility of local authorities.

⁵⁰ The Town and Country Planning (Development Management Procedure and Section 62A Applications) (England) (Amendment) Order 2013.

⁵¹ DCLG/Planning Aid/RTPI (2010) Good Practice Guide to Public Engagement in Development Schemes

⁵² Renewables Advisory Board & DTI (May 2007) Protocol for Public Engagement with Proposed Wind Energy Developments in England

- 9.5.13 The onus of consultation is not wholly on the developer; effective consultation involves a two-way dialogue. Local planning authorities, statutory agencies, other consultees and local communities all have a responsibility to engage. The Planning Advisory Service's '10 commitments for effective pre-application engagement'⁵³ seeks to bring together all parties involved in or impacted by a development to ensure that issues of conflict can be resolved before an application is submitted.
- 9.5.14 Specific local requirements for consultation are set out in each local planning authority's validation checklist and Statement of Community Involvement (SCI). SCIs also provide indicative lists of potential local consultees (although such lists should be reviewed to ensure they are up-to-date, and should be supplemented by any additional consultees identified). A government-sponsored protocol for wind energy engagement⁵⁴ makes clear that SCIs are a key consideration when undertaking consultation, and that it is "*important in any particular case to show how the Engagement Plan relates to what is in each LPA's SCI and neither conflicts with it nor duplicates it*".

⁵³ Local Government Association (January 2014), 10 commitments for effective pre-application engagement

⁵⁴ Renewables Advisory Board and DTI (May 2007) The Protocol for Public Engagement with Proposed Wind Energy Developments in England

Please contact us if you need this document in another format, or if you have any questions.

Phone: **01905 766097**

Email: **sp@worcestershire.gov.uk**

Write to: **Strategic Planning
Worcestershire County Council
County Hall
Worcester
WR5 2NP**

