

Kate Hall  
Chair  
Dorset Energy Partnership  
County Hall  
Colliton Park  
DORCHESTER  
DT1 1XJ

8 January 2013

Dear Kate,

**ENDORSEMENT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY**

It is with regret that we have to confirm that Dorset CPRE is unable to endorse the Final Draft of the Bournemouth, Dorset & Poole Renewable Energy Strategy.

The document is described as a 'refresh' and an 'update' of the Bournemouth, Dorset & Poole Renewable Energy Strategy published in December 2005. For the contentious case of wind it is clearly neither of these. The 2005 wind energy resource assessment included, critically, landscape constraint. This resulted in an assessment equivalent to thirty 2.5 MW turbines. In contrast, the current assessment, that does not include landscape constraint, is equivalent to 360 turbines. Rather than admit that this assessment is nonsensical and of no practical use, the Dorset Energy Partnership has advised that it 'should be taken with a pinch of salt' and has variously claimed that it is 'completely hypothetical', 'speculative' and 'a theoretical maximum'. The Partnership clearly does not appreciate that an assessment arrived at by a nationally approved eight-stage sequential filtering process is, technically, a 'practicable accessible' assessment albeit, in this case, an inappropriate and unbelievable one. The appropriate description of the Strategy's wind energy assessment is that it is retrogressive, a backward step that encourages damage to a valued resource that the Partnership knows full well is continually under threat from unnecessary development.

In its response to the Consultation Draft, Dorset CPRE expressed serious concerns for the influence of the Strategy on the planning process arising from its exaggerated wind resource assessment. In response to these concerns the Partnership gave a categorical assurance that 'a resource assessment is not a material consideration when determining renewable energy planning applications'. If the Partnership informed the Planning Inspectorate of this assurance, it clearly ignored it. The fact that the Strategy has been given 'significant' weight (Inspector Paul Jackson's Alaska Appeal Decision 6 July 2012) and 'moderate' weight (Inspector Neil Pope's Siltan Appeal Decision 8 November 2012), provide a clear message that it has not been in the interests of those local authorities assessed as being well-endowed with wind energy to endorse this Strategy.

Dorset CPRE | Charity no: 211974  
The Little Keep | Bridport Road | Dorchester | Dorset | DT1 1SQ  
www.dorset-cpre.org.uk Tel: 01305 265808

The Campaign to protect Rural England exists to promote the beauty, tranquillity and diversity of rural England by encouraging the sustainable use of land and other natural resources in town and country.

You will know that the reaction of North Dorset, Purbeck and West Dorset District Councils to this unwelcome influence on the planning process has been to initiate collaboration on an assessment of landscape sensitivity to the presence of wind turbines. Clearly this assessment would not be necessary if the Partnership had included landscape constraint as part of the £1.7 million Strategy. These authorities recognise that if the Strategy remains unaltered they will be faced with a persistent, worrying outcome. It has given landowners and wind farm developers the wrong signal - a false perception that rural Dorset has far more practicable wind resource than it really has. As a result, authorities are likely to be faced with unnecessarily large numbers of planning applications.

The Partnership's decision to place the onus totally on the planning process to safeguard Dorset's landscape heritage is a dereliction of responsibility. The Strategy should provide the first line of defence.

At our meeting with you on 27 March 2012, you gave us an assurance that a fourth supporting document to the Strategy - devoted to Landscape - would be prepared. We were led to believe that this would address the conflicting issues of the Strategy's gross overestimate of practicable wind energy and the need to protect Dorset's landscape from unacceptably damaging wind turbine development. It was promised that it would be an integral part of the Strategy, as are the existing supporting documents. As you must be aware, the Partnership has not given Dorset CPRE any indication whatsoever of progress on this Document.

The Strategy's descriptions of useful realistic renewable energy deployment scenarios reveal the order of magnitude disconnect between them and the unrealistic estimate of available wind energy resource. Such a disconnect has no place in a Strategy that aspires to be taken seriously by the Government, the Department for Energy & Climate Change, Local Authorities, professionals in the renewable energy field and organisations concerned with the environment. Without a foundation of realistic energy resource assessments, it is not possible to develop at any level - global, national or local, realistic renewable energy targets and realistic scenarios to achieve them.

The attached CPRE Response to the Strategy expands on some of the above issues. It considers three scenarios, designed to achieve Dorset's 15 per cent renewable energy target to which we fully subscribe. The scenarios have been chosen for illustrative purposes only. Our position is that we reserve judgement on these and any other scenarios until such time that a realistic wind energy resource assessment has been carried out and the results are in the public domain. An annexe addresses the Strategy as it applies to individual local authorities in the Greater Dorset area.

It can be noted here that the Strategy does not include nor explain the absence of a 2020 wind energy resource assessment for small turbines. This is strange, since the Partnership's consultants have carried out such an assessment. The Level 2 assessment, published June 2010, was 479 GWh, generated from 41,399 turbines with a notional installed capacity of 6 kW and an assumed capacity factor of 0.22.

Yours sincerely,

Richard Nicholls  
Chairman  
Dorset CPRE

Telephone 01308 422679    Email richardnicholls452@btinternet.com  
Attachment

THE FINAL DRAFT FOR ENDORSEMENT OF THE BOURNEMOUTH, DORSET &  
POOLE RENEWABLE ENERGY STRATEGY

**A Response from Dorset Branch  
Campaign to Protect Rural England**



15 NOVEMBER 2012

Dorset CPRE | Charity no: 211974  
The Little Keep | Bridport Road | Dorchester | Dorset | DT1 1SQ  
[www.dorset-cpre.org.uk](http://www.dorset-cpre.org.uk) Tel: 01305 265808

The Campaign to protect Rural England exists to promote the beauty, tranquillity and diversity of rural England by encouraging the sustainable use of land and other natural resources in town and country.

## EXECUTIVE SUMMARY

**The Final Draft of the Dorset Renewable Energy Strategy is not fit for purpose. Its assessment of Dorset's large scale wind resource is far too high, the result of inappropriate methodology. The Dorset Energy Partnership must revisit the Strategy's methodological foundation and amend it to include landscape constraint for the purpose of protecting Dorset's landscape. Without this protection the Strategy threatens unacceptable damage to over 400 square miles of rural Dorset with the presence of 360 industrial-size turbines. With landscape protection this number is expected to drop to 30. The Strategy requires realistic renewable energy resource assessments to properly inform target setting and scenario options at subregional level. Dorset CPRE is unable to endorse a Renewable Energy Strategy that is clearly unfit for purpose.**

1. Dorset CPRE finds the Final Draft of the Dorset Renewable Energy Strategy to be seriously flawed. The procedure or methodology used to determine Dorset's wind energy resource has been applied without landscape constraint. Application of landscape constraint is essential if unacceptable damage to landscape is to be avoided.

2. The Strategy does not acknowledge the fact that absence of landscape constraint has led to an estimate for Dorset's practicable wind resource that is too high to be of any practical use. The estimate is equivalent to the output from 360 2.5 MW turbines<sup>1</sup>. With landscape constraint, the realistic number, suggested by informed opinion, is 30, representing a reduction in resource of 92 per cent<sup>2,3,4</sup>. Realistic resource assessments are the necessary foundation of a credible Renewable Energy Strategy from which all targets and scenario options can be derived with confidence. The Dorset Energy Partnership's excessive estimate for wind throws the credibility of its entire Strategy into doubt.

3. The fact that Dorset's wind energy resource has been overestimated by perhaps over 90 per cent raises several questions:

1. Why is the estimate so ambitious?
2. Why is landscape constraint missing from the resource assessment?
3. Why have land owners, wind farm developers, Development Control/Management Committees and Planning Appeal Inspectors been given the message that Dorset could sustain 360 turbines?
4. Why is the Partnership willing to risk raised eyebrows reflecting incredulity when professionals in the field, including those at the Department of Energy & Climate Change, see this unrealistic estimate?
5. After spending 1.7 million pounds, why is the Partnership not in a position to provide a realistic wind resource estimate for each local authority? Without it, an authority with a potential wind resource will find it expensive and difficult to develop scenarios and set appropriate targets for each technology at its disposal that can be monitored for progress and adjusted as the target year approaches.

4. The answer to all these questions is that, to meet misconceived, narrow political objectives, the Partnership deliberately omitted landscape constraint from the wind energy resource assessment procedure. The Partnership knew that if the critical step of applying landscape constraint had been taken, it would have reduced the wind energy resource assessment to well below the equivalent of 268 turbines<sup>5</sup>, the number required to meet, on a fair-contribution-from-each-technology basis, its original 15 per cent renewable energy target. The Partnership also knew that even if all resources other than wind were exploited to the full, wind would have to contribute the equivalent of 221 turbines<sup>5</sup> in order to meet the 15 per cent target.

5. Not to be in a position to claim an aggregate resource capable of meeting a 15 per cent target was not an acceptable option for the Partnership, since it was determined to have '*an ambitious aspirational target*' that '*may help maintain the credibility of the area as a leader and champion in the field*'<sup>6</sup>. Thus, fearful of '*failure to meet its proportion of the national renewable energy target*'<sup>6</sup> it was prepared to sacrifice Dorset's unique environment.

6. On 12 July 2011 the Partnership was presented with an opportunity to revisit and revise its wind energy resource assessment, which had received severe evidence-based criticism from Dorset CPRE and others during the Strategy's consultation period. On that date the Department of Energy & Climate Change (DECC) published its UK Renewable Energy Roadmap, which literally halved Dorset's target for renewable energy generation from its own resources from 15 to 7.5 per cent. The implication for the contribution of wind to the new target was that the numbers corresponding to those referred to at 4 above were reduced to 134 and 19, respectively (Appendix, Tables 3 & 5). However, the Partnership, without explanation, ignored the opportunity that the Roadmap presented and left Dorset's overestimated wind resource untouched at 360 turbines.

7. Following publication of the Strategy's Final Draft on 27 March 2012, Dorset County Council's Cabinet made an unseemly rush to endorse it on 4 April, without benefit of an evidence-based discussion. The Cabinet's hasty decision makes a mockery of its continually restated aim in its corporate plan to 'safeguard Dorset's unique environment'. By its endorsement the Cabinet is supporting the principle that it is acceptable to cover the 1,080 km<sup>2</sup> (417 square miles) of rural Dorset outside its AONBs and Heritage Coast with 360 industrial-size turbines, contained within 100 wind farms with an average separation distance of 2.5 km (1.6 miles)<sup>2</sup>. As explained at 14 below, this is a quarter of the professionally recommended separation distance of 10 km (6.2 miles).

8. Methodologies for landscape constraint have been available for many years and continue to be developed. It can be noted here that landscape constraint based on landscape character was used extensively in the previous South West regional and subregional wind energy resource assessment, published in 2005<sup>7</sup>. For each landscape character area in the region it took into account wind turbine size, wind farm size, the distance between wind farms and the overall landscape sensitivity of an area to wind farm development.

9. When this methodology was applied to Dorset at that time it resulted in a practicably accessible wind resource equivalent to 30 2.5 MW turbines<sup>4</sup>.

10. With reference to overall landscape sensitivity, the character of most of Dorset's landscape is particularly sensitive to the presence of large wind turbines. By one measure, on a scale of 1 (low sensitivity) to 5 (high sensitivity) most of Dorset is ranked 4. When this is converted into a landscape sensitivity constraint factor it reduces the 360 turbines the Strategy claims as practicable by 75 per cent, down to 90<sup>2</sup>.

11. As the number of wind farms increases within an area a second type of visual damage, known as cumulative impact or visual clutter, can develop which could reduce the practicable resource for Dorset to significantly below 90 turbines. SQWenergy has expressed the view<sup>8</sup> that by 2020 the minimum requirement for wind farm separation to prevent unacceptable cumulative impact will not exceed 10 km. The Dorset CPRE response to the Consultation Draft suggested that this criterion could only be guaranteed to be met if the number of turbines to be distributed over the land area available (rural Dorset outside its AONBs and Heritage Coast) did not exceed 30<sup>2</sup>. Pete West, Dorset County Council's Renewable Energy Development Officer and Joint Executive Secretary of the Dorset Energy Partnership, has also suggested that 30 is a realistic number<sup>3</sup>.

12. The Strategy implies that landscape constraint, amongst others 'will need to be considered through the planning process' (4.7, Role of Onshore Wind, para.1). It is clear that landscape already figures prominently in the planning process and will continue to do so but, in addition, it is imperative that it be given full consideration at the Strategy level. It is contemptible that the Partnership is content to rely upon the planning process to safeguard Dorset's landscape heritage when its own Strategy should provide the first line of defence.

13. On 14 May 2012, CPRE Dorset received an assurance from Dorset County Council<sup>9</sup> that '*the strategy is not a material consideration in the determination of planning applications*'.

14. There is now clear evidence that this statement is far from the truth. On page 20 of his Alaska Wind Farm Appeal Decision<sup>10</sup>, Planning Inspector Paul Jackson makes the unequivocal statement that '*I give significant weight*' to the Strategy. On page 21 of his letter, Mr Jackson accepts the Strategy's identification of '*onshore wind as the single largest theoretically available resource in Dorset*'. Mr Jackson was unaware that, with landscape constraint, wind energy's dominance evaporates, as its contribution drops from 66 to 14 per cent (Appendix, Tables 1 & 2). Similarly, on page 3 of his Silton Wind Farm Appeal Decision, Planning Inspector Neil Pope states that the Strategy '*carries moderate weight*', although in this case it was insufficient for him to allow the Appeal<sup>11</sup>.

15. If the Strategy remains uncorrected we anticipate further concerns. One is that it will give landowners and wind farm developers the wrong signal - a false perception that rural Dorset has far more practicable wind resource than it really has, leading to unnecessarily large numbers of planning applications. A second is that an order of magnitude disconnect between realistic and unrealistic estimates of wind energy resource has no place in a Strategy that aspires to be taken seriously by professionals in the renewable energy field.

16. On publication of the Final Draft of the Strategy in March this year, Dorset CPRE was assured by the Dorset Energy Partnership that a fourth Supplement to the Strategy would be prepared that would be devoted to landscape issues. We were led to believe that the main Strategy document and all four Supplements would carry equal weight. CPRE has not been kept informed as to progress, if any, on the preparation of this document. In the meantime, several Local Authorities have endorsed the Strategy without benefit of the fourth Supplement. Therefore, we have no reason or incentive at this time to alter our view that the Strategy is unfit for purpose and does not warrant endorsement.

17. Although of no practical use whatsoever, the Strategy's Consultation Draft provided illustrative scenarios involving 360 and 180 turbines, consistent with a stated practicably accessible resource equivalent to 360 turbines. The Final Draft has no clear quantitative illustrative scenarios. This is disappointing since, as pointed out at 2 above, scenarios are needed to assess progress and adjust expectations for individual technologies. The Appendix to this response suggests three relevant scenarios that illustrate their utility.

18. It should be emphasised here that the Strategy's resource assessment methodology is satisfactory for all renewable energy sources in Dorset other than wind. Thus the Strategy's practicable resource estimates for these other sources are realistic for purposes of target setting and scenario selection. The excessive outcome of 900 MW for wind represents a dominating 66.3 per cent of the total for all technologies (Appendix, Table 1 and Figure 2). With a more realistic estimate of a 75 MW (30 turbine equivalent) contribution, that percentage drops to 14.1 per cent (Appendix, Table 2 and Figure 2).

19. The estimated annual energy generation from 30 2.5 MW turbines is 177.39 GWh. This represents a contribution of 14.09 per cent towards Dorset's 2020 resources. To reach the 2020 target on a fair-contribution-from-each-technology basis would require each Dorset source to contribute 94.76% of its practicable resource. The contribution from wind would be 168.10 GWh, equivalent to 28 2.5 MW turbines (Appendix, Table 4 and Figures 3 & 4, SCENARIO 2).

20. It can be noted that 19 turbines are required to reach the target if each remaining technology contributes 100 per cent of its practicable resource (Appendix, Table 5 and Figures 3 & 4, SCENARIO 3). This scenario is referred to in the Final Draft (4.7, Role of Onshore Wind, para. 2, lines 2-3). It reduces the contribution from wind towards the 2020 target to 4.7 per cent.

## 21. CONCLUSIONS

Dorset CPRE is unable to endorse the Dorset Energy Partnership's Bournemouth, Dorset & Poole Renewable Energy Strategy. There is sufficient evidence to demonstrate that it is not fit for purpose. CPRE is not prepared to reconsider its position until the Partnership publishes revised District level estimates of Dorset's wind energy resources that are based on an assessment methodology that includes comprehensive landscape constraint.

## REFERENCES

1. Renewable Energy Resource Assessment for Bournemouth, Dorset & Poole, 3.4, p.13, Regen SW, March 2012.
2. A Critique of the Proposed Maximum and Medium Scenarios for the Contribution of Wind Energy from Land Based Industrial Turbines, a response to the Consultation Draft of the Updated Bournemouth, Dorset & Poole Renewable Energy Strategy, Dorset CPRE, 27 February 2011.
3. Pete West, Renewable Energy Development Officer, Dorset County Council and Joint Executive Secretary, Dorset Energy Partnership, opinion expressed at Dorset County Council's Cabinet Meeting (Item 10), 4 April 2012.
4. REvision 2010, Final Report to GOSW and the South West Regional Assembly, Annex 15, p.202, June 2004.
5. For details of this reference, the reader is requested to contact Dr D E Peacock, E-mail: [peacock@surfreesw.co.uk](mailto:peacock@surfreesw.co.uk), Telephone: 01297 560805.
6. Refreshing the Renewable Energy Strategy for Bournemouth, Dorset & Poole, Issues Paper, p.35, Issue 14, Regen SW, May 2011.
7. REvision 2020, Final Report to GOSW and the South West Regional Assembly, Annexes 1, 3 & 4, June 2005.
8. Renewable and Low-carbon Energy Capacity Methodology, p. A-4, SQWenergy, January 2010.
9. E-mail to David Peacock (Dorset CPRE) from Pete West, (Dorset County Council Renewable Energy Development Officer), 14 May 2012.
10. Alaska Wind Farm Proposal, Appeal Decision, Reference APP/B1225/A/11/2161905, Planning Inspectorate, 6 July 2012.
11. Silton Wind Farm Proposal, Appeal Decision, Reference APP/N1215/A/11/2160839, Planning Inspectorate, 8 November 2012.

## SCENARIOS FOR ACHIEVING A 15% TARGET FOR RENEWABLE ENERGY IN DORSET ARISING OUT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY TO 2020

The Dorset Energy Partnership has proposed an aspirational target of at least 15% of Bournemouth, Dorset and Poole's energy needs to be met by renewable sources by 2020. Three scenarios have been chosen to illustrate how this target could be achieved.

Scenarios 1 & 3 represent the two ends of a spectrum of possibilities. Any scenario with more than 30 turbines is anticipated to cause unacceptable landscape damage at least on a cumulative impact basis.

1. The estimate for Dorset's total energy consumption in 2020 is 15,904.55 GWh.
2. The renewable energy target for 2020 is 15% of total energy consumption or 2,385.68 GWh.
3. The estimate for the contribution of national resources to Dorset's target is 50% or 1,192.84 GWh.

**Table 1 (see Figures 1 & 2) The Strategy's Estimates for Dorset's Practicably Accessible Resources Without Landscape Constraint**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 900.00                  | 0.27            | 2,128.68                | 66.31                       | 360.0                     |
| 2 Biomass               | 215.50                  | 0.30            | 564.86                  | 17.60                       |                           |
| 3 Heat pumps            | 274.98                  | 0.10            | 240.88                  | 7.50                        |                           |
| 4 Solar photovoltaic    | 162.61                  | 0.10            | 142.45                  | 4.44                        |                           |
| 5 Solar thermal         | 135.49                  | 0.10            | 118.69                  | 3.70                        |                           |
| 6 Small hydro power     | 3.31                    | 0.50            | 14.50                   | 0.45                        |                           |
| <b>TOTAL</b>            | <b>1,691.89</b>         | <b>0.22</b>     | <b>3,210.05</b>         | <b>100.00</b>               |                           |

**Table 2 (see Figures 1 & 2) Estimates for Dorset's Practicably Accessible Resources With Landscape Constraint Applied to Wind**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 75.00                   | 0.27            | 177.39                  | 14.09                       | 30.0                      |
| 2 Biomass               | 215.50                  | 0.30            | 564.86                  | 44.87                       |                           |
| 3 Heat pumps            | 274.98                  | 0.10            | 240.88                  | 19.14                       |                           |
| 4 Solar photovoltaic    | 162.61                  | 0.10            | 142.45                  | 11.32                       |                           |
| 5 Solar thermal         | 135.49                  | 0.10            | 118.69                  | 9.43                        |                           |
| 6 Small hydro power     | 3.31                    | 0.50            | 14.50                   | 1.15                        |                           |
| <b>TOTAL</b>            | <b>866.89</b>           | <b>0.17</b>     | <b>1,258.76</b>         | <b>100.00</b>               |                           |

**Table 3 SCENARIO 1 (see Figures 3 & 4)**

This includes a 50% contribution from national resources and requires a contribution from every Dorset source in the same proportion that it contributes to Dorset's total resource (assessed without landscape constraint applied to wind) to make up the balance of 50%. A 134 turbine contribution from wind would damage 400 square miles of landscape on a cumulative impact basis.

| Item                              | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|-----------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Dorset large onshore wind       | 334.44                  | 0.27            | 791.01                  | 33.16                    | 37.16                     | 133.8                     |
| 2 Dorset biomass                  | 80.08                   | 0.30            | 209.90                  | 8.80                     | 37.16                     |                           |
| 3 Dorset heat pumps               | 102.18                  | 0.10            | 89.51                   | 3.75                     | 37.16                     |                           |
| 4 Dorset solar photovoltaic       | 60.43                   | 0.10            | 52.93                   | 2.22                     | 37.16                     |                           |
| 5 Dorset solar thermal            | 50.35                   | 0.10            | 44.10                   | 1.85                     | 37.16                     |                           |
| 6 Dorset small hydro power        | 1.23                    | 0.50            | 5.39                    | 0.23                     | 37.16                     |                           |
| <b>Dorset contribution 7.5%</b>   | <b>628.70</b>           | <b>0.22</b>     | <b>1,192.84</b>         | <b>50.00</b>             | <b>37.16</b>              |                           |
| <b>National contribution 7.5%</b> | Unknown                 | Unknown         | <b>1,192.84</b>         | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                      | Unknown                 | Unknown         | <b>2,385.68</b>         | <b>100.00</b>            |                           |                           |



**Table 4 SCENARIO 2 (see Figures 3 & 4)**

This includes a 50% contribution from national resources and requires a contribution from every Dorset source in the same proportion that it contributes to Dorset's total resource (assessed with landscape constraint applied to wind) to make up the balance of 50%. A 28 turbine contribution from wind would not cause damage on a cumulative impact basis.

| Item                              | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|-----------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Dorset large onshore wind       | 71.07                   | 0.27            | 168.10                  | 7.05                     | 94.76                     | 28.4                      |
| 2 Dorset biomass                  | 202.36                  | 0.30            | 535.27                  | 22.44                    | 94.76                     |                           |
| 3 Dorset heat pumps               | 258.22                  | 0.10            | 228.27                  | 9.57                     | 94.76                     |                           |
| 4 Dorset solar photovoltaic       | 152.70                  | 0.10            | 134.99                  | 5.66                     | 94.76                     |                           |
| 5 Dorset solar thermal            | 127.23                  | 0.10            | 112.47                  | 4.71                     | 94.76                     |                           |
| 6 Dorset small hydro power        | 3.11                    | 0.50            | 13.74                   | 0.58                     | 94.76                     |                           |
| <b>Dorset contribution 7.5%</b>   | <b>818.62</b>           | <b>0.17</b>     | <b>1,192.84</b>         | <b>50.00</b>             | <b>94.76</b>              |                           |
| <b>National contribution 7.5%</b> | Unknown                 | Unknown         | <b>1,192.84</b>         | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                      | Unknown                 | Unknown         | <b>2,385.68</b>         | <b>100.00</b>            |                           |                           |

**Table 5 SCENARIO 3 (see Figures 3 & 4)**

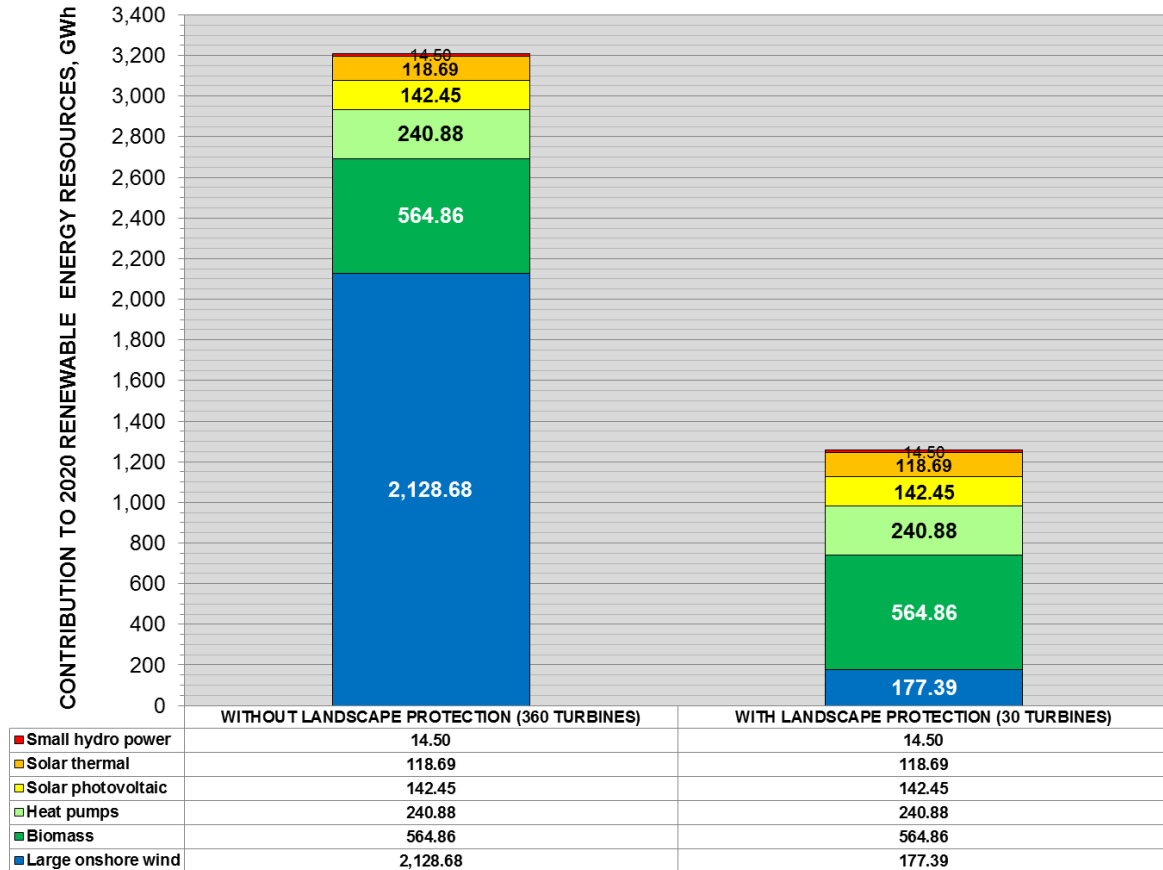
This Scenario is designed to minimise the contribution from wind. It includes a 50% contribution from national resources and requires a maximum contribution from every Dorset source with the exception of wind. A contribution from wind equivalent to 19 turbines (63% of an assumed resource of 30 turbines) is necessary to reach the required balance of 50% from Dorset sources.

| Item                              | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|-----------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Dorset large onshore wind       | 47.13                   | 0.27            | 111.47                  | 4.67                     | 62.84                     | 18.9                      |
| 2 Dorset biomass                  | 215.50                  | 0.30            | 564.86                  | 23.68                    | 100.00                    |                           |
| 3 Dorset heat pumps               | 274.98                  | 0.10            | 240.88                  | 10.10                    | 100.00                    |                           |
| 4 Dorset solar photovoltaic       | 162.61                  | 0.10            | 142.45                  | 5.97                     | 100.00                    |                           |
| 5 Dorset solar thermal            | 135.49                  | 0.10            | 118.69                  | 4.98                     | 100.00                    |                           |
| 6 Dorset small hydro power        | 3.31                    | 0.50            | 14.50                   | 0.61                     | 100.00                    |                           |
| <b>Dorset contribution 7.5%</b>   | <b>839.02</b>           | <b>0.16</b>     | <b>1,192.84</b>         | <b>50.00</b>             | <b>94.76</b>              |                           |
| <b>National contribution 7.5%</b> | Unknown                 | Unknown         | <b>1,192.84</b>         | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                      | Unknown                 | Unknown         | <b>2,385.68</b>         | <b>100.00</b>            |                           |                           |

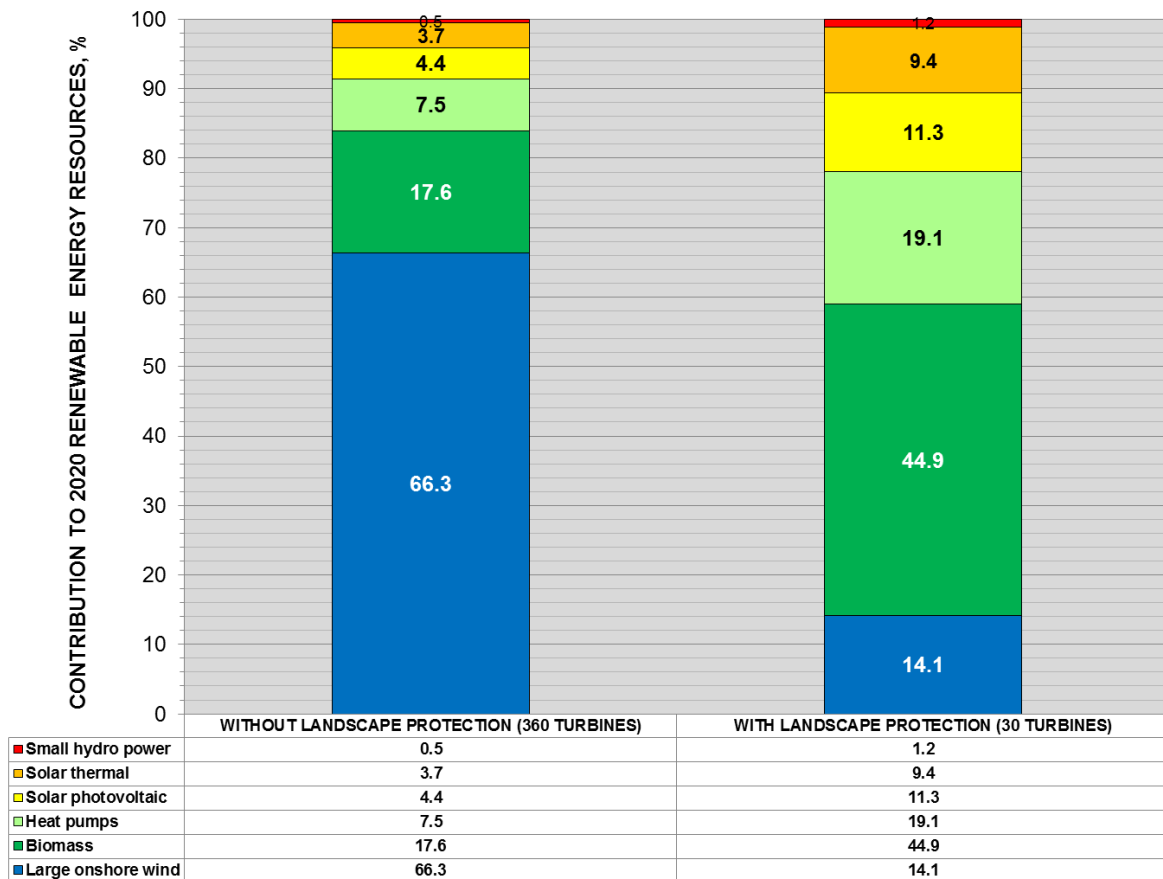
**SOURCES**

1. Bournemouth, Dorset & Poole Renewable Energy Strategy to 2020, Final Draft for Endorsement, March 2012.
2. Renewable Energy Resource Assessment for Bournemouth, Dorset & Poole, Regen SW, March 2012.

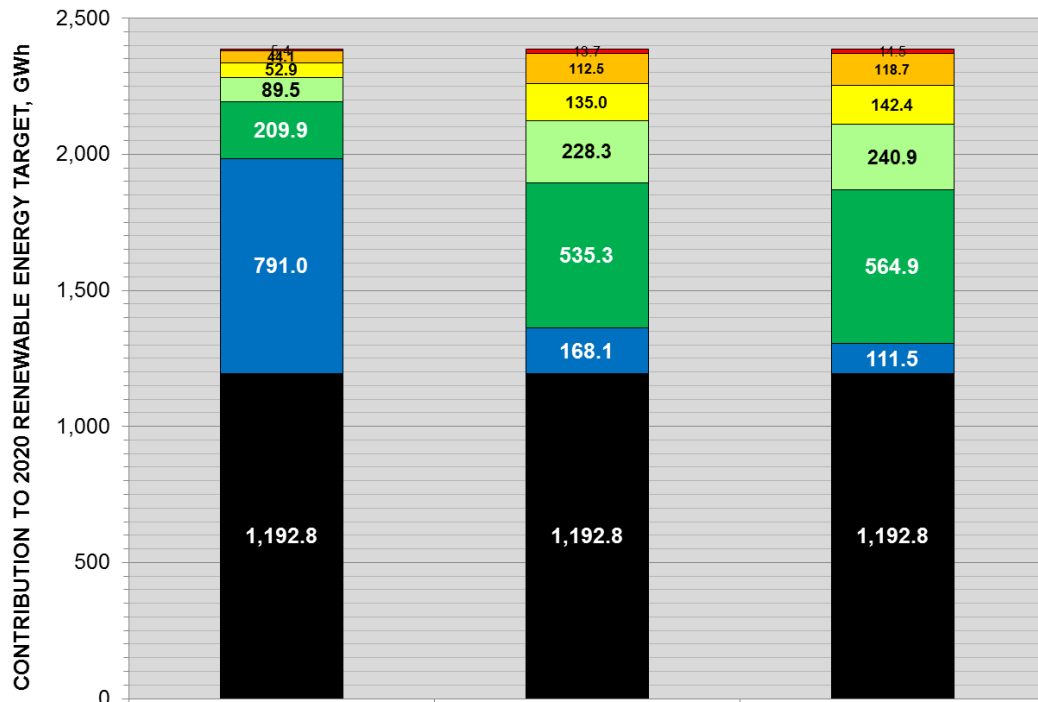
**Fig.1: DORSET'S 2020 RENEWABLE ENERGY RESOURCES CONTRIBUTION IN GIGAWATT HOURS**



**Fig.2: DORSET'S 2020 RENEWABLE ENERGY RESOURCES CONTRIBUTION BY PERCENTAGE**

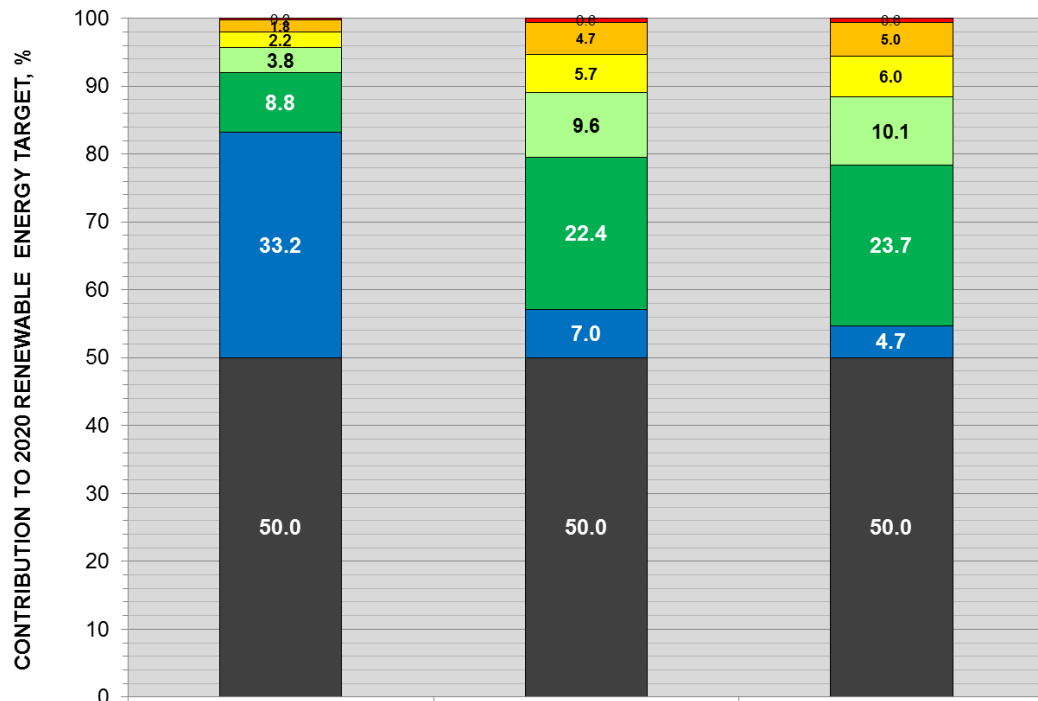


**Fig. 3: MEETING DORSET'S 2,386 GWh 2020 RENEWABLE ENERGY TARGET**



|                           | SCENARIO 1 (134 turbines) | SCENARIO 2 (28 turbines) | SCENARIO 3 (19 turbines) |
|---------------------------|---------------------------|--------------------------|--------------------------|
| Dorset small hydro power  | 5.4                       | 13.7                     | 14.5                     |
| Dorset solar thermal      | 44.1                      | 112.5                    | 118.7                    |
| Dorset solar photovoltaic | 52.9                      | 135.0                    | 142.4                    |
| Dorset heat pumps         | 89.5                      | 228.3                    | 240.9                    |
| Dorset biomass            | 209.9                     | 535.3                    | 564.9                    |
| Dorset large wind         | 791.0                     | 168.1                    | 111.5                    |
| National contribution     | 1,192.8                   | 1,192.8                  | 1,192.8                  |

**Fig. 4: MEETING 100% OF DORSET'S 2020 RENEWABLE ENERGY TARGET**



|                           | SCENARIO 1 (134 turbines) | SCENARIO 2 (28 turbines) | SCENARIO 3 (19 turbines) |
|---------------------------|---------------------------|--------------------------|--------------------------|
| Dorset small hydro power  | 0.2                       | 0.6                      | 0.6                      |
| Dorset solar thermal      | 1.8                       | 4.7                      | 5.0                      |
| Dorset solar photovoltaic | 2.2                       | 5.7                      | 6.0                      |
| Dorset heat pumps         | 3.8                       | 9.6                      | 10.1                     |
| Dorset biomass            | 8.8                       | 22.4                     | 23.7                     |
| Dorset large wind         | 33.2                      | 7.0                      | 4.7                      |
| National contribution     | 50.0                      | 50.0                     | 50.0                     |

## Energy Consumption, Renewable Energy Resources and Renewable Energy Targets for the Districts and Unitary Authorities of Greater Dorset

| CONTENTS  | Page |
|---|------|
| Summary Tables for Energy Consumption and Renewable Energy Resources and Targets        | 1    |
| Data and Scenarios 1 & 2 for Christchurch   | 2    |
| Data and Scenarios 1, 2 & 3 for East Dorset   | 3    |
| Data and Scenarios 1, 2 & 3 for North Dorset  | 5    |
| Data and Scenarios 1, 2 & 3 for Purbeck   | 7    |
| Data and Scenarios 1, 2 & 3 for West Dorset   | 9    |
| Data for Weymouth & Portland  | 11   |
| Data for Bournemouth  | 12   |
| Data for Poole  | 13   |
| Figure 1 Energy Consumption   | 14   |
| Figure 2 Renewable Energy Resources & Targets   | 15   |
| Figure 3 Energy Consumption and Renewable Energy Resources & Targets                    | 16   |
| Figure 4 Scenario 1 Targets: Energy Values  | 17   |
| Figure 5 Scenario 1 Targets: Percentage Contributions, including national contribution  | 18   |
| Figure 6 Scenario 1 Targets: Percentage Contributions, excluding national contribution  | 19   |
| Figure 7 Scenario 2 Targets: Energy Values  | 20   |
| Figure 8 Scenario 2 Targets: Percentage Contributions, including national contribution  | 21   |
| Figure 9 Scenario 2 Targets: Percentage Contributions, excluding national contribution  | 22   |
| Figure 10 Scenario 3 Targets: Energy Values   | 23   |
| Figure 11 Scenario 3 Targets: Percentage Contributions, including national contribution | 24   |
| Figure 12 Scenario 3 Targets: Percentage Contributions, excluding national contribution | 25   |

### NOTE

1. Scenario 1 Renewable Energy Targets include a 50% contribution from national resources and require a contribution from each local renewable energy source in the same proportion that it contributes to the total local renewable energy resource to make up the balance of 50%. See Figures 4, 5 & 6.
2. Scenario 2 Renewable Energy Targets include a 50% contribution from national resources and no contribution from wind. The balance of 50% is made up by a contribution from each of the remaining technologies in the same proportion that it contributes to the total renewable energy resource. See Figures 7, 8 & 9.
3. Scenario 3 is the same as Scenario 1 but with one exception. The wind energy resource has been reduced by the introduction of a Dorset CPRE landscape constraint methodology. See Figures 10, 11 & 12.
4. For Weymouth & Portland, Bournemouth and Poole, the total renewable energy resource, including the contribution from national resources, falls below the renewable energy target. This is illustrated for Scenario 1 in Figures 4, 5 & 6. Scenarios 2 & 3 are not appropriate for these areas. Scenario 3 is not appropriate for Christchurch because of its low wind resource.



Dorset Branch CPRE  
The Little Keep  
Bridport Road  
DORCHESTER  
DT1 1SQ

## SUMMARY TABLES FOR ENERGY CONSUMPTION AND RENEWABLE ENERGY RESOURCE ASSESSMENTS AND TARGETS

The UK's commitment to a 15 percent renewable energy target for 2020 is based on a total energy consumption for 2020 that is defined by EU Directive 2009/28/EC. The UK Government has confined its estimates for 2020 to the UK as a whole. However, RegenSW has suggested that for sub-national areas estimates for 2020 can be arrived at by applying percentage changes of -10, -12 and +10 to 2005 consumption levels for heat, electricity and transport, respectively. This suggestion has been applied to the local authority areas of Greater Dorset and the results are shown in Tables 1 & 2. Table 3 shows 2020 renewable energy resource assessments, with and without landscape constraint for wind, and 2020 7.5 per cent targets for renewable energy generation from local sources. More details can be found in the data tables provided for individual local authorities.

**Table 1**

| Area                  | 2005            |                 |                 |                  |
|-----------------------|-----------------|-----------------|-----------------|------------------|
|                       | Heat            | Electricity     | Transport       | TOTAL            |
|                       | GWh             | GWh             | GWh             | GWh              |
| Christchurch          | 508.05          | 225.04          | 282.75          | 1,015.84         |
| East Dorset           | 1,188.10        | 352.66          | 623.53          | 2,164.29         |
| North Dorset          | 745.09          | 308.13          | 412.15          | 1,465.37         |
| Purbeck               | 552.77          | 363.55          | 417.03          | 1,333.35         |
| West Dorset           | 1,177.74        | 519.51          | 906.32          | 2,603.57         |
| Weymouth & Portland   | 553.13          | 251.09          | 242.31          | 1,046.52         |
| <b>Bournemouth</b>    | <b>1,690.90</b> | <b>805.82</b>   | <b>625.25</b>   | <b>3,121.96</b>  |
| <b>Poole</b>          | <b>1,924.18</b> | <b>766.47</b>   | <b>641.82</b>   | <b>3,332.48</b>  |
| <b>Dorset County</b>  | <b>4,724.89</b> | <b>2,019.97</b> | <b>2,884.09</b> | <b>9,628.94</b>  |
| <b>Greater Dorset</b> | <b>8,339.97</b> | <b>3,592.26</b> | <b>4,151.16</b> | <b>16,083.38</b> |

SOURCE: Total sub-national final energy consumption 2005 - 2009, Publication URN: 11D/936, DECC, revised 22 December 2011.


**Table 2**


| Area                  | 2020            |                    |                  |                  |
|-----------------------|-----------------|--------------------|------------------|------------------|
|                       | Heat<br>GWh     | Electricity<br>GWh | Transport<br>GWh | TOTAL<br>GWh     |
| Christchurch          | 457.25          | 198.04             | 311.02           | 966.31           |
| East Dorset           | 1,069.29        | 310.34             | 685.88           | 2,065.51         |
| North Dorset          | 670.58          | 271.15             | 453.37           | 1,395.11         |
| Purbeck               | 497.49          | 319.92             | 458.73           | 1,276.15         |
| West Dorset           | 1,059.97        | 457.17             | 996.96           | 2,514.09         |
| Weymouth & Portland   | 497.82          | 220.96             | 266.54           | 985.31           |
| <b>Bournemouth</b>    | <b>1,521.81</b> | <b>709.12</b>      | <b>687.77</b>    | <b>2,918.70</b>  |
| <b>Poole</b>          | <b>1,731.76</b> | <b>674.50</b>      | <b>706.01</b>    | <b>3,112.27</b>  |
| <b>Dorset County</b>  | <b>4,252.40</b> | <b>1,777.57</b>    | <b>3,172.50</b>  | <b>9,202.47</b>  |
| <b>Greater Dorset</b> | <b>7,505.97</b> | <b>3,161.19</b>    | <b>4,566.27</b>  | <b>15,233.43</b> |

SOURCE: Final Draft for Endorsement of the Bournemouth, Dorset & Poole Renewable Energy Strategy, Supporting Document 'Renewable Energy Resource Assessment', p.44, RegenSW, 27 March 2012.

**Table 3**

| Area                  | 2020                                  |                                    |                                       |   |
|-----------------------|---------------------------------------|------------------------------------|---------------------------------------|---|
|                       | Total<br>Energy<br>Consumption<br>GWh | Local Renewable Energy Resource    |                                       | Local 7.5%<br>Renewable<br>Energy Target<br>GWh |
|                       |                                       | w/o landscape<br>constraint<br>GWh | w/with landscape<br>constraint<br>GWh |   |
| Christchurch          | 966.31                                | 91.28                              | 91.28                                 | 72.47   |
| East Dorset           | 2,065.51                              | 298.17                             | 170.25                                | 154.91  |
| North Dorset          | 1,395.11                              | 795.18                             | 214.12                                | 104.63  |
| Purbeck               | 1,276.15                              | 627.51                             | 176.53                                | 95.71   |
| West Dorset           | 2,514.09                              | 1,088.77                           | 312.58                                | 188.56  |
| Weymouth & Portland   | 985.31                                | 62.90                              | 62.90                                 | 73.90   |
| <b>Bournemouth</b>    | <b>2,918.70</b>                       | <b>129.46</b>                      | <b>129.46</b>                         | <b>218.90</b>                                   |
| <b>Poole</b>          | <b>3,112.27</b>                       | <b>116.81</b>                      | <b>116.81</b>                         | <b>233.42</b>                                   |
| <b>Dorset County</b>  | <b>9,202.47</b>                       | <b>2,963.81</b>                    | <b>1,027.68</b>                       | <b>690.19</b>                                   |
| <b>Greater Dorset</b> | <b>15,233.43</b>                      | <b>3,210.08</b>                    | <b>1,273.94</b>                       | <b>1,142.51</b>                                 |

 = Target achievable with assessed resources.

 = Target not achievable with assessed resources.

NOTE: Landscape constraint for wind energy has been applied to East Dorset, North Dorset, Purbeck and West Dorset. The wind resource assessments for Christchurch, Weymouth & Portland, Bournemouth and Poole are either zero or too low to justify constraint.

**SCENARIOS FOR ACHIEVING A 15% TARGET FOR RENEWABLE ENERGY IN CHRISTCHURCH ARISING OUT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY TO 2020**

The Dorset Energy Partnership has proposed an aspirational target of at least 15% of Christchurch's energy needs to be met by renewable sources by 2020. Two scenarios have been chosen to illustrate how this target could be achieved:

**SCENARIO 1** This includes a 50% contribution from national resources and requires a contribution of 80.15% of its resource from every Christchurch source, to make up the balance of 50%.

**SCENARIO 2** This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 86.91% of its resource from every Christchurch source, with the exception of wind, to make up the balance of 50%

1. The estimate for Christchurch's total energy consumption in 2020 is 966.31 GWh.
2. The renewable energy target for 2020 is 15% of total energy consumption or 144.95 GWh.
3. The estimate for the contribution of national resources to Christchurch's target is 50% or 72.47 GWh.
4. The estimate for renewable energy generation from all sources in Christchurch in 2020 is 91.28 GWh.

**Table 1 The Strategy's Estimates for Christchurch's Practicably Accessible Resources Without Landscape Constraint**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 3.00                    | 0.27            | 7.10                    | 7.77                        | 1.2                       |
| 2 Biomass               | 7.98                    | 0.3196          | 22.34                   | 24.48                       |                           |
| 3 Heat pumps            | 47.97                   | 0.10            | 42.02                   | 46.04                       |                           |
| 4 Solar photovoltaic    | 10.32                   | 0.10            | 9.04                    | 9.90                        |                           |
| 5 Solar thermal         | 8.53                    | 0.10            | 7.47                    | 8.19                        |                           |
| 6 Small hydro power     | 0.76                    | 0.50            | 3.31                    | 3.62                        |                           |
| <b>TOTAL</b>            | <b>78.56</b>            | <b>0.13</b>     | <b>91.28</b>            | <b>100.00</b>               |                           |

**Table 2 SCENARIO 1 (see Figures 4, 5 & 6)**

**This includes a 50% contribution from national resources and requires a contribution of 79.40% of its resource from every Christchurch source, to make up the balance of 50%.**

| Item                                  | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|---------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Christchurch large onshore wind     | 2.38                    | 0.27            | 5.63                    | 3.89                     | 79.40                     | 1.0                       |
| 2 Christchurch biomass                | 6.34                    | 0.32            | 17.74                   | 12.24                    | 79.40                     |                           |
| 3 Christchurch heat pumps             | 38.09                   | 0.10            | 33.36                   | 23.02                    | 79.40                     |                           |
| 4 Christchurch solar photovoltaic     | 8.19                    | 0.10            | 7.18                    | 4.95                     | 79.40                     |                           |
| 5 Christchurch solar thermal          | 6.77                    | 0.10            | 5.93                    | 4.09                     | 79.40                     |                           |
| 6 Christchurch small hydro power      | 0.60                    | 0.50            | 2.63                    | 1.81                     | 79.40                     |                           |
| <b>Christchurch contribution 7.5%</b> | <b>62.37</b>            | <b>0.13</b>     | <b>72.47</b>            | <b>50.00</b>             | <b>79.40</b>              |                           |
| <b>National contribution 7.5%</b>     | Unknown                 | Unknown         | <b>72.47</b>            | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                          | Unknown                 | Unknown         | <b>144.95</b>           | <b>100.00</b>            |                           |                           |

**Table 3 SCENARIO 2 (see Figures 7, 8 & 9)**

**This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 86.09% of its resource from every Christchurch source, with the exception of wind, to make up the balance of 50%**

| Item                                  | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|---------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Christchurch large onshore wind     | 0.00                    | 0.27            | 0                       | 0.00                     | 0.00                      | 0.0                       |
| 2 Christchurch biomass                | 6.87                    | 0.32            | 19.24                   | 13.27                    | 86.09                     |                           |
| 3 Christchurch heat pumps             | 41.30                   | 0.10            | 36.18                   | 24.96                    | 86.09                     |                           |
| 4 Christchurch solar photovoltaic     | 8.88                    | 0.10            | 7.78                    | 5.37                     | 86.09                     |                           |
| 5 Christchurch solar thermal          | 7.34                    | 0.10            | 6.43                    | 4.44                     | 86.09                     |                           |
| 6 Christchurch small hydro power      | 0.65                    | 0.50            | 2.85                    | 1.96                     | 86.09                     |                           |
| <b>Christchurch contribution 7.5%</b> | <b>65.04</b>            | <b>0.13</b>     | <b>72.47</b>            | <b>50.00</b>             | <b>79.40</b>              |                           |
| <b>National contribution 7.5%</b>     | Unknown                 | Unknown         | <b>72.47</b>            | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                          | Unknown                 | Unknown         | <b>144.95</b>           | <b>100.00</b>            |                           |                           |

**SCENARIOS FOR ACHIEVING A 15% TARGET FOR RENEWABLE ENERGY IN EAST DORSET ARISING OUT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY TO 2020**

The Dorset Energy Partnership has proposed an aspirational target of at least 15% of East Dorset's energy needs to be met by renewable sources by 2020. Three scenarios have been chosen to illustrate how this target could be achieved:

**SCENARIO 1** This includes a 50% contribution from national resources and requires a contribution of 52.37% of its resource from every East Dorset source, to make up the balance of 50%.

**SCENARIO 2** This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 98.45% of its resource from every East Dorset source, with the exception of wind, to make up the balance of 50%

**SCENARIO 3** is the same as Scenario 1, with one exception. The wind energy resource has been reduced by the introduction of a landscape constraint methodology designed by Dorset CPRE. This is described in Dorset CPRE's Response to the Consultation Draft of the Bournemouth, Dorset & Poole Renewable Energy Strategy.

1. The estimate for East Dorset's total energy consumption in 2020 is 2,065.51 GWh.
2. The renewable energy target for 2020 is 15% of total energy consumption or 309.83 GWh.
3. The estimate for the contribution of national resources to East Dorset's target is 50% or 154.91 GWh.
4. The estimate for renewable energy generation from all sources in East Dorset in 2020 is 298.17 GWh.

**Table 1 The Strategy's Estimates for East Dorset's Practicably Accessible Resources Without Landscape Constraint**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 59.00                   | 0.27            | 139.55                  | 46.80                       | 23.6                      |
| 2 Biomass               | 34.99                   | 0.2637          | 80.82                   | 27.11                       |                           |
| 3 Heat pumps            | 48.85                   | 0.10            | 42.79                   | 14.35                       |                           |
| 4 Solar photovoltaic    | 19.93                   | 0.10            | 17.46                   | 5.86                        |                           |
| 5 Solar thermal         | 16.26                   | 0.10            | 14.24                   | 4.78                        |                           |
| 6 Small hydro power     | 0.76                    | 0.50            | 3.31                    | 1.11                        |                           |
| <b>TOTAL</b>            | <b>179.79</b>           | <b>0.19</b>     | <b>298.17</b>           | <b>100.00</b>               |                           |

**Table 2 SCENARIO 1 (see Figures 4, 5 & 6)**

**This includes a 50% contribution from national resources and requires a contribution of 51.95% of its resource from every East Dorset source, to make up the balance of 50%.**

| Item                                 | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|--------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 East Dorset large onshore wind     | 30.65                   | 0.27            | 72.50                   | 23.40                    | 51.95                     | 12.3                      |
| 2 East Dorset biomass                | 18.18                   | 0.26            | 41.99                   | 13.55                    | 51.95                     |                           |
| 3 East Dorset heat pumps             | 25.38                   | 0.10            | 22.23                   | 7.18                     | 51.95                     |                           |
| 4 East Dorset solar photovoltaic     | 10.35                   | 0.10            | 9.07                    | 2.93                     | 51.95                     |                           |
| 5 East Dorset solar thermal          | 8.45                    | 0.10            | 7.40                    | 2.39                     | 51.95                     |                           |
| 6 East Dorset small hydro power      | 0.39                    | 0.50            | 1.72                    | 0.55                     | 51.95                     |                           |
| <b>East Dorset contribution 7.5%</b> | <b>93.41</b>            | <b>0.19</b>     | <b>154.91</b>           | <b>50.00</b>             | <b>51.95</b>              |                           |
| <b>National contribution 7.5%</b>    | Unknown                 | Unknown         | <b>154.91</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                         | Unknown                 | Unknown         | <b>309.83</b>           | <b>100.00</b>            |                           |                           |

**Table 3 SCENARIO 2 (see Figures 7, 8 & 9)**

**This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 97.65% of its resource from every East Dorset source, with the exception of wind, to make up the balance of 50%**

| Item                                 | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|--------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 East Dorset large onshore wind     | 0.00                    | 0.27            | 0                       | 0.00                     | 0.00                      | 0.0                       |
| 2 East Dorset biomass                | 34.17                   | 0.26            | 78.93                   | 25.48                    | 97.66                     |                           |
| 3 East Dorset heat pumps             | 47.71                   | 0.10            | 41.79                   | 13.49                    | 97.66                     |                           |
| 4 East Dorset solar photovoltaic     | 19.46                   | 0.10            | 17.05                   | 5.50                     | 97.66                     |                           |
| 5 East Dorset solar thermal          | 15.88                   | 0.10            | 13.91                   | 4.49                     | 97.66                     |                           |
| 6 East Dorset small hydro power      | 0.74                    | 0.50            | 3.23                    | 1.04                     | 97.66                     |                           |
| <b>East Dorset contribution 7.5%</b> | <b>117.96</b>           | <b>0.15</b>     | <b>154.91</b>           | <b>50.00</b>             | <b>51.95</b>              |                           |
| <b>National contribution 7.5%</b>    | Unknown                 | Unknown         | <b>154.91</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                         | Unknown                 | Unknown         | <b>309.83</b>           | <b>100.00</b>            |                           |                           |

**Table 4 Estimates for East Dorset's Practicable Renewable Energy Resources With Landscape Constraint. A wind energy resource assessment methodology developed by Dorset Branch CPRE suggests that with landscape constraint the Strategy's wind energy resource assessment would fall close to 92 per cent, from the equivalent of 24 2.5 MW turbines to 2.**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 4.92                    | 0.27            | 11.63                   | 6.83                        | 2.0                       |
| 2 Biomass               | 34.99                   | 0.2637          | 80.82                   | 47.47                       |                           |
| 3 Heat pumps            | 48.85                   | 0.10            | 42.79                   | 25.13                       |                           |
| 4 Solar photovoltaic    | 19.93                   | 0.10            | 17.46                   | 10.25                       |                           |
| 5 Solar thermal         | 16.26                   | 0.10            | 14.24                   | 8.37                        |                           |
| 6 Small hydro power     | 0.76                    | 0.50            | 3.31                    | 1.94                        |                           |
| <b>TOTAL</b>            | <b>125.70</b>           | <b>0.15</b>     | <b>170.25</b>           | <b>100.00</b>               |                           |

**Table 5 SCENARIO 3 (see Figures 10, 11 & 12)**

**Similar to SCENARIO 1 but with landscape constraint applied to the wind energy assessment. It includes a 50% contribution from national resources and requires a contribution of 90.99% of its resource from every East Dorset source, to make up the balance of 50%.**

| Item                                 | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|--------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 East Dorset large onshore wind     | 4.47                    | 0.27            | 10.58                   | 3.42                     | 90.99                     | 1.8                       |
| 2 East Dorset biomass                | 31.84                   | 0.26            | 73.54                   | 23.74                    | 90.99                     |                           |
| 3 East Dorset heat pumps             | 44.45                   | 0.10            | 38.94                   | 12.57                    | 90.99                     |                           |
| 4 East Dorset solar photovoltaic     | 18.13                   | 0.10            | 15.89                   | 5.13                     | 90.99                     |                           |
| 5 East Dorset solar thermal          | 14.80                   | 0.10            | 12.96                   | 4.18                     | 90.99                     |                           |
| 6 East Dorset small hydro power      | 0.69                    | 0.50            | 3.01                    | 0.97                     | 90.99                     |                           |
| <b>East Dorset contribution 7.5%</b> | <b>114.38</b>           | <b>0.15</b>     | <b>154.91</b>           | <b>50.00</b>             | <b>90.99</b>              |                           |
| <b>National contribution 7.5%</b>    | Unknown                 | Unknown         | <b>154.91</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                         | Unknown                 | Unknown         | <b>309.83</b>           | <b>100.00</b>            |                           |                           |



**SCENARIOS FOR ACHIEVING A 15% TARGET FOR RENEWABLE ENERGY IN NORTH DORSET ARISING OUT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY TO 2020**

The Dorset Energy Partnership has proposed an aspirational target of at least 15% of North Dorset's energy needs to be met by renewable sources by 2020.

Three scenarios have been chosen to illustrate how this target could be achieved:

**SCENARIO 1** This includes a 50% contribution from national resources and requires a contribution of 13.35% of its resource from every North Dorset source, to make up the balance of 50%.

**SCENARIO 2** This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 65.83% of its resource from every North Dorset source, with the exception of wind, to make up the balance of 50%

**SCENARIO 3** is the same as Scenario 1, with one exception. The wind energy resource has been reduced by the introduction of a landscape constraint methodology designed by Dorset CPRE.

This is described in Dorset CPRE's Response to the Consultation Draft of the Bournemouth, Dorset & Poole Renewable Energy Strategy.

1. The estimate for North Dorset's total energy consumption in 2020 is 1,395.11 GWh.
2. The renewable energy target for 2020 is 15% of total energy consumption or 209.27 GWh.
3. The estimate for the contribution of national resources to North Dorset's target is 50% or 104.63 GWh.
4. The estimate for renewable energy generation from all sources in North Dorset in 2020 is 795.18 GWh.

**Table 1 The Strategy's Estimates for North Dorset's Practicably Accessible Resources Without Landscape Constraint**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 268.00                  | 0.27            | 633.87                  | 79.71                       | 107.2                     |
| 2 Biomass               | 36.01                   | 0.3116          | 98.30                   | 12.36                       |                           |
| 3 Heat pumps            | 38.64                   | 0.10            | 33.85                   | 4.26                        |                           |
| 4 Solar photovoltaic    | 16.38                   | 0.10            | 14.35                   | 1.80                        |                           |
| 5 Solar thermal         | 14.11                   | 0.10            | 12.36                   | 1.55                        |                           |
| 6 Small hydro power     | 0.56                    | 0.50            | 2.45                    | 0.31                        |                           |
| <b>TOTAL</b>            | <b>373.70</b>           | <b>0.24</b>     | <b>795.18</b>           | <b>100.00</b>               |                           |

**Table 2 SCENARIO 1 (see Figures 4, 5 & 6)**

This includes a 50% contribution from national resources and requires a contribution of 13.16% of its resource from every North Dorset source, to make up the balance of 50%.

| Item                                  | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|---------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 North Dorset large onshore wind     | 35.26                   | 0.27            | 83.41                   | 39.86                    | 13.16                     | 14.1                      |
| 2 North Dorset biomass                | 4.74                    | 0.31            | 12.93                   | 6.18                     | 13.16                     |                           |
| 3 North Dorset heat pumps             | 5.08                    | 0.10            | 4.45                    | 2.13                     | 13.16                     |                           |
| 4 North Dorset solar photovoltaic     | 2.16                    | 0.10            | 1.89                    | 0.90                     | 13.16                     |                           |
| 5 North Dorset solar thermal          | 1.86                    | 0.10            | 1.63                    | 0.78                     | 13.16                     |                           |
| 6 North Dorset small hydro power      | 0.07                    | 0.50            | 0.32                    | 0.15                     | 13.16                     |                           |
| <b>North Dorset contribution 7.5%</b> | <b>49.17</b>            | <b>0.24</b>     | <b>104.63</b>           | <b>50.00</b>             | <b>13.16</b>              |                           |
| <b>National contribution 7.5%</b>     | Unknown                 | Unknown         | <b>104.63</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                          | Unknown                 | Unknown         | <b>209.27</b>           | <b>100.00</b>            |                           |                           |

**Table 3 SCENARIO 2 (see Figures 7, 8 & 9)**

This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 64.87% of its resource from every North Dorset source, with the exception of wind, to make up the balance of 50%

| Item                                  | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|---------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 North Dorset large onshore wind     | 0.00                    | 0.27            | 0.00                    | 0.00                     | 0.00                      | 0.0                       |
| 2 North Dorset biomass                | 23.36                   | 0.31            | 63.76                   | 30.02                    | 64.87                     |                           |
| 3 North Dorset heat pumps             | 25.06                   | 0.10            | 21.96                   | 10.34                    | 64.87                     |                           |
| 4 North Dorset solar photovoltaic     | 10.63                   | 0.10            | 9.31                    | 4.38                     | 64.87                     |                           |
| 5 North Dorset solar thermal          | 9.15                    | 0.10            | 8.02                    | 3.78                     | 64.87                     |                           |
| 6 North Dorset small hydro power      | 0.36                    | 0.50            | 1.59                    | 0.75                     | 64.87                     |                           |
| <b>North Dorset contribution 7.5%</b> | <b>68.56</b>            | <b>0.17</b>     | <b>104.63</b>           | <b>49.26</b>             | <b>13.16</b>              |                           |
| <b>National contribution 7.5%</b>     | Unknown                 | Unknown         | <b>104.63</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                          | Unknown                 | Unknown         | <b>209.27</b>           | <b>100.00</b>            |                           |                           |

**Table 4 Estimates for North Dorset's Practicable Renewable Energy Resources With Landscape Constraint.**  
**A wind energy resource assessment methodology developed by Dorset Branch CPRE suggests that with landscape constraint the Strategy's wind energy resource assessment would fall close to 92 per cent, from the equivalent of 107 2.5 MW turbines to 9.**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 22.33                   | 0.27            | 52.81                   | 24.67                       | 8.9                       |
| 2 Biomass               | 36.01                   | 0.3116          | 98.30                   | 45.91                       |                           |
| 3 Heat pumps            | 38.64                   | 0.10            | 33.85                   | 15.81                       |                           |
| 4 Solar photovoltaic    | 16.38                   | 0.10            | 14.35                   | 6.70                        |                           |
| 5 Solar thermal         | 14.11                   | 0.10            | 12.36                   | 5.77                        |                           |
| 6 Small hydro power     | 0.56                    | 0.50            | 2.45                    | 1.15                        |                           |
| <b>TOTAL</b>            | <b>128.03</b>           | <b>0.19</b>     | <b>214.12</b>           | <b>100.00</b>               |                           |

**Table 5 SCENARIO 3 (see Figures 10, 11 & 12)**

**Similar to SCENARIO 1 but with landscape constraint applied to the wind energy assessment. It includes a 50% contribution from national resources and requires a contribution of 48.87% of its resource from every East Dorset source, to make up the balance of 50%.**

| Item                                  | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|---------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 North Dorset large onshore wind     | 10.91                   | 0.27            | 25.81                   | 12.33                    | 48.87                     | 4.4                       |
| 2 North Dorset biomass                | 17.60                   | 0.31            | 48.03                   | 22.95                    | 48.87                     |                           |
| 3 North Dorset heat pumps             | 18.88                   | 0.10            | 16.54                   | 7.90                     | 48.87                     |                           |
| 4 North Dorset solar photovoltaic     | 8.00                    | 0.10            | 7.01                    | 3.35                     | 48.87                     |                           |
| 5 North Dorset solar thermal          | 6.90                    | 0.10            | 6.04                    | 2.89                     | 48.87                     |                           |
| 6 North Dorset small hydro power      | 0.27                    | 0.50            | 1.20                    | 0.57                     | 48.87                     |                           |
| <b>North Dorset contribution 7.5%</b> | <b>62.56</b>            | <b>0.19</b>     | <b>104.63</b>           | <b>50.00</b>             | <b>48.87</b>              |                           |
| <b>National contribution 7.5%</b>     | Unknown                 | Unknown         | <b>104.63</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                          | Unknown                 | Unknown         | <b>209.27</b>           | <b>100.00</b>            |                           |                           |

**SCENARIOS FOR ACHIEVING A 15% TARGET FOR RENEWABLE ENERGY IN PURBECK ARISING OUT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY TO 2020**

The Dorset Energy Partnership has proposed an aspirational target of at least 15% of Purbeck's energy needs to be met by renewable sources by 2020. Three scenarios have been chosen to illustrate how this target could be achieved:

**SCENARIO 1** This includes a 50% contribution from national resources and requires a contribution of 15.34% of its resource from every Purbeck source, to make up the balance of 50%.

**SCENARIO 2** This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 71.01% of its resource from every Purbeck source, with the exception of wind, to make up the balance of 50%

**SCENARIO 3** is the same as Scenario 1, with one exception. The wind energy resource has been reduced by the introduction of a landscape constraint methodology designed by Dorset CPRE. This is described in Dorset CPRE's Response to the Consultation Draft of the Bournemouth, Dorset & Poole Renewable Energy Strategy.

1. The estimate for Purbeck's total energy consumption in 2020 is 1,276.15 GWh.
2. The renewable energy target for 2020 is 15% of total energy consumption or 191.42 GWh.
3. The estimate for the contribution of national resources to Purbeck's target is 50% or 95.71 GWh.
4. The estimate for renewable energy generation from all sources in Purbeck in 2020 is 627.51 GWh.

**Table 1 The Strategy's Estimates for Purbeck's Practicably Accessible Resources Without Landscape Constraint**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 208.00                  | 0.27            | 491.96                  | 78.40                       | 83.2                      |
| 2 Biomass               | 45.29                   | 0.2375          | 94.24                   | 15.02                       |                           |
| 3 Heat pumps            | 26.28                   | 0.10            | 23.02                   | 3.67                        |                           |
| 4 Solar photovoltaic    | 10.10                   | 0.10            | 8.85                    | 1.41                        |                           |
| 5 Solar thermal         | 8.52                    | 0.10            | 7.46                    | 1.19                        |                           |
| 6 Small hydro power     | 0.45                    | 0.50            | 1.97                    | 0.31                        |                           |
| <b>TOTAL</b>            | <b>298.64</b>           | <b>0.24</b>     | <b>627.51</b>           | <b>100.00</b>               |                           |

**Table 2 SCENARIO 1 (see Figures 4, 5 & 6)**

**This includes a 50% contribution from national resources and requires a contribution of 15.25% of its resource from every Purbeck source, to make up the balance of 50%.**

| Item                              | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|-----------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Purbeck large onshore wind      | 31.73                   | 0.27            | 75.04                   | 39.20                    | 15.25                     | 12.7                      |
| 2 Purbeck biomass                 | 6.91                    | 0.24            | 14.37                   | 7.51                     | 15.25                     |                           |
| 3 Purbeck heat pumps              | 4.01                    | 0.10            | 3.51                    | 1.83                     | 15.25                     |                           |
| 4 Purbeck solar photovoltaic      | 1.54                    | 0.10            | 1.35                    | 0.70                     | 15.25                     |                           |
| 5 Purbeck solar thermal           | 1.30                    | 0.10            | 1.14                    | 0.59                     | 15.25                     |                           |
| 6 Purbeck small hydro power       | 0.07                    | 0.50            | 0.30                    | 0.16                     | 15.25                     |                           |
| <b>Purbeck contribution 7.5%</b>  | <b>45.55</b>            | <b>0.24</b>     | <b>95.71</b>            | <b>50.00</b>             | <b>15.25</b>              |                           |
| <b>National contribution 7.5%</b> | Unknown                 | Unknown         | <b>95.71</b>            | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                      | Unknown                 | Unknown         | <b>191.42</b>           | <b>100.00</b>            |                           |                           |

**Table 3 SCENARIO 2 (see Figures 7, 8 & 9)**

**This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 70.61% of its resource from every Purbeck source, with the exception of wind, to make up the balance of 50%**

| Item                              | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|-----------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Purbeck large onshore wind      | 0.00                    | 0.27            | 0.00                    | 0.00                     | 0.00                      | 0.0                       |
| 2 Purbeck biomass                 | 31.98                   | 0.24            | 66.55                   | 34.76                    | 70.61                     |                           |
| 3 Purbeck heat pumps              | 18.56                   | 0.10            | 16.26                   | 8.49                     | 70.61                     |                           |
| 4 Purbeck solar photovoltaic      | 7.13                    | 0.10            | 6.25                    | 3.26                     | 70.61                     |                           |
| 5 Purbeck solar thermal           | 6.02                    | 0.10            | 5.27                    | 2.75                     | 70.61                     |                           |
| 6 Purbeck small hydro power       | 0.32                    | 0.50            | 1.39                    | 0.73                     | 70.61                     |                           |
| <b>Purbeck contribution 7.5%</b>  | <b>64.00</b>            | <b>0.17</b>     | <b>95.71</b>            | <b>50.00</b>             | <b>15.25</b>              |                           |
| <b>National contribution 7.5%</b> | Unknown                 | Unknown         | <b>95.71</b>            | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                      | Unknown                 | Unknown         | <b>191.42</b>           | <b>100.00</b>            |                           |                           |

**Table 4 Estimates for Purbeck's Practicable Renewable Energy Resources With Landscape Constraint.**  
**A wind energy resource assessment methodology developed by Dorset Branch CPRE suggests that with landscape constraint the Strategy's wind energy resource assessment would fall close to 92 per cent, from the equivalent of 83 2.5 MW turbines to 4.**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 17.33                   | 0.27            | 40.99                   | 23.22                       | 6.9                       |
| 2 Biomass               | 45.29                   | 0.2375          | 94.24                   | 53.38                       |                           |
| 3 Heat pumps            | 26.28                   | 0.10            | 23.02                   | 13.04                       |                           |
| 4 Solar photovoltaic    | 10.10                   | 0.10            | 8.85                    | 5.01                        |                           |
| 5 Solar thermal         | 8.52                    | 0.10            | 7.46                    | 4.23                        |                           |
| 6 Small hydro power     | 0.45                    | 0.50            | 1.97                    | 1.12                        |                           |
| <b>TOTAL</b>            | <b>107.97</b>           | <b>0.19</b>     | <b>176.53</b>           | <b>100.00</b>               |                           |

**Table 5 SCENARIO 3 (see Figures 10, 11 & 12)**

**Similar to SCENARIO 1 but with landscape constraint applied to the wind energy assessment. It includes a 50% contribution from national resources and requires a contribution of 54.22% of its resource from every Purbeck source, to make up the balance of 50%.**

| Item                              | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|-----------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Purbeck large onshore wind      | 9.40                    | 0.27            | 22.22                   | 11.61                    | 54.22                     | 3.8                       |
| 2 Purbeck biomass                 | 24.55                   | 0.24            | 51.09                   | 26.69                    | 54.22                     |                           |
| 3 Purbeck heat pumps              | 14.25                   | 0.10            | 12.48                   | 6.52                     | 54.22                     |                           |
| 4 Purbeck solar photovoltaic      | 5.48                    | 0.10            | 4.80                    | 2.51                     | 54.22                     |                           |
| 5 Purbeck solar thermal           | 4.62                    | 0.10            | 4.05                    | 2.11                     | 54.22                     |                           |
| 6 Purbeck small hydro power       | 0.24                    | 0.50            | 1.07                    | 0.56                     | 54.22                     |                           |
| <b>Purbeck contribution 7.5%</b>  | <b>58.54</b>            | <b>0.19</b>     | <b>95.71</b>            | <b>50.00</b>             | <b>54.22</b>              |                           |
| <b>National contribution 7.5%</b> | Unknown                 | Unknown         | <b>95.71</b>            | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                      | Unknown                 | Unknown         | <b>191.42</b>           | <b>100.00</b>            |                           |                           |

**SCENARIOS FOR ACHIEVING A 15% TARGET FOR RENEWABLE ENERGY IN WEST DORSET ARISING OUT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY TO 2020**

The Dorset Energy Partnership has proposed an aspirational target of at least 15% of West Dorset's energy needs to be met by renewable sources by 2020. Three scenarios have been chosen to illustrate how this target could be achieved:

**SCENARIO 1** This includes a 50% contribution from national resources and requires a contribution of 17.32% of its resource from every West Dorset source, to make up the balance of 50%.

**SCENARIO 2** This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 77.92% of its resource from every West Dorset source, with the exception of wind, to make up the balance of 50%

**SCENARIO 3** is the same as Scenario 1, with one exception. The wind energy resource has been reduced by the introduction of a landscape constraint methodology designed by Dorset CPRE. This is described in Dorset CPRE's Response to the Consultation Draft of the Bournemouth, Dorset & Poole Renewable Energy Strategy.

1. The estimate for West Dorset's total energy consumption in 2020 is 2,514.09 GWh.
2. The renewable energy target for 2020 is 15% of total energy consumption or 377.11 GWh.
3. The estimate for the contribution of national resources to West Dorset's target is 50% or 188.56 GWh.
4. The estimate for renewable energy generation from all sources in West Dorset in 2020 is 1,088.77 GWh.

**Table 1 The Strategy's Estimates for West Dorset's Practicably Accessible Resources Without Landscape Constraint**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 358.00                  | 0.27            | 846.74                  | 77.77                       | 143.2                     |
| 2 Biomass               | 55.27                   | 0.3032          | 146.82                  | 13.48                       |                           |
| 3 Heat pumps            | 57.95                   | 0.10            | 50.76                   | 4.66                        |                           |
| 4 Solar photovoltaic    | 25.48                   | 0.10            | 22.32                   | 2.05                        |                           |
| 5 Solar thermal         | 21.56                   | 0.10            | 18.89                   | 1.73                        |                           |
| 6 Small hydro power     | 0.74                    | 0.50            | 3.24                    | 0.30                        |                           |
| <b>TOTAL</b>            | <b>519.00</b>           | <b>0.24</b>     | <b>1,088.77</b>         | <b>100.00</b>               |                           |

**Table 2 SCENARIO 1 (see Figures 4, 5 & 6)**

**This includes a 50% contribution from national resources and requires a contribution of 17.32% of its resource from every West Dorset source, to make up the balance of 50%.**

| Item                                 | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|--------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 West Dorset large onshore wind     | 62.00                   | 0.27            | 146.64                  | 38.89                    | 17.32                     | 24.8                      |
| 2 West Dorset biomass                | 9.57                    | 0.30            | 25.43                   | 6.74                     | 17.32                     |                           |
| 3 West Dorset heat pumps             | 10.04                   | 0.10            | 8.79                    | 2.33                     | 17.32                     |                           |
| 4 West Dorset solar photovoltaic     | 4.41                    | 0.10            | 3.87                    | 1.03                     | 17.32                     |                           |
| 5 West Dorset solar thermal          | 3.73                    | 0.10            | 3.27                    | 0.87                     | 17.32                     |                           |
| 6 West Dorset small hydro power      | 0.13                    | 0.50            | 0.56                    | 0.15                     | 17.32                     |                           |
| <b>West Dorset contribution 7.5%</b> | <b>89.88</b>            | <b>0.24</b>     | <b>188.56</b>           | <b>50.00</b>             | <b>17.32</b>              |                           |
| <b>National contribution 7.5%</b>    | Unknown                 | Unknown         | <b>188.56</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                         | Unknown                 | Unknown         | <b>377.11</b>           | <b>100.00</b>            |                           |                           |

**Table 3 SCENARIO 2 (see Figures 7, 8 & 9)**

**This reduces the contribution from wind to zero. It includes a 50% contribution from national resources (as for Scenario 1) and requires a contribution of 77.91% of its resource from every West Dorset source, with the exception of wind, to make up the balance of 50%**

| Item                                 | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|--------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 West Dorset large onshore wind     | 0.00                    | 0.27            | 0.00                    | 0.00                     | 0.00                      | 0.0                       |
| 2 West Dorset biomass                | 43.06                   | 0.3032          | 114.38                  | 30.33                    | 77.91                     |                           |
| 3 West Dorset heat pumps             | 45.15                   | 0.10            | 39.55                   | 10.49                    | 77.91                     |                           |
| 4 West Dorset solar photovoltaic     | 19.85                   | 0.10            | 17.39                   | 4.61                     | 77.91                     |                           |
| 5 West Dorset solar thermal          | 16.80                   | 0.10            | 14.71                   | 3.90                     | 77.91                     |                           |
| 6 West Dorset small hydro power      | 0.58                    | 0.50            | 2.53                    | 0.67                     | 77.91                     |                           |
| <b>West Dorset contribution 7.5%</b> | <b>125.43</b>           | <b>0.17</b>     | <b>188.56</b>           | <b>50.00</b>             | <b>17.32</b>              |                           |
| <b>National contribution 7.5%</b>    | Unknown                 | Unknown         | <b>188.56</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                         | Unknown                 | Unknown         | <b>377.11</b>           | <b>100.00</b>            |                           |                           |

**Table 4 Estimates for West Dorset's Practicable Renewable Energy Resources With Landscape Constraint. A wind energy resource assessment methodology developed by Dorset Branch CPRE suggests that with landscape constraint the Strategy's wind energy resource assessment would fall close to 92 per cent, from the equivalent of 143 2.5 MW turbines to 12.**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 29.83                   | 0.27            | 70.55                   | 22.57                       | 11.9                      |
| 2 Biomass               | 55.27                   | 0.3032          | 146.82                  | 46.97                       |                           |
| 3 Heat pumps            | 57.95                   | 0.10            | 50.76                   | 16.24                       |                           |
| 4 Solar photovoltaic    | 25.48                   | 0.10            | 22.32                   | 7.14                        |                           |
| 5 Solar thermal         | 21.56                   | 0.10            | 18.89                   | 6.04                        |                           |
| 6 Small hydro power     | 0.74                    | 0.50            | 3.24                    | 1.04                        |                           |
| <b>TOTAL</b>            | <b>190.83</b>           | <b>0.19</b>     | <b>312.58</b>           | <b>100.00</b>               |                           |

**Table 5 SCENARIO 3 (see Figures 10, 11 & 12)**

**Similar to SCENARIO 1 but with landscape constraint applied to the wind energy assessment.**

**It includes a 50% contribution from national resources and requires a contribution of 60.32% of its resource from every West Dorset source, to make up the balance of 50%.**

| Item                                 | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|--------------------------------------|-------------------------|-----------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 West Dorset large onshore wind     | 17.99                   | 0.27            | 42.56                   | 11.29                    | 60.32                     | 7.2                       |
| 2 West Dorset biomass                | 33.34                   | 0.30            | 88.56                   | 23.48                    | 60.32                     |                           |
| 3 West Dorset heat pumps             | 34.96                   | 0.10            | 30.62                   | 8.12                     | 60.32                     |                           |
| 4 West Dorset solar photovoltaic     | 15.37                   | 0.10            | 13.46                   | 3.57                     | 60.32                     |                           |
| 5 West Dorset solar thermal          | 13.01                   | 0.10            | 11.39                   | 3.02                     | 60.32                     |                           |
| 6 West Dorset small hydro power      | 0.45                    | 0.50            | 1.96                    | 0.52                     | 60.32                     |                           |
| <b>West Dorset contribution 7.5%</b> | <b>115.11</b>           | <b>0.19</b>     | <b>188.56</b>           | <b>50.00</b>             | <b>60.32</b>              |                           |
| <b>National contribution 7.5%</b>    | Unknown                 | Unknown         | <b>188.56</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                         | Unknown                 | Unknown         | <b>377.11</b>           | <b>100.00</b>            |                           |                           |

**THE RENEWABLE ENERGY TARGET FOR WEYMOUTH & PORTLAND ARISING OUT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY TO 2020**

The Dorset Energy Partnership has proposed an aspirational target of at least 15% of Weymouth & Portland's energy needs to be met by renewable sources by 2020.

The data provided below indicate that the estimates for Weymouth & Portland's renewable energy resources are, collectively, insufficient to allow the Target to be met. When added to the contribution from national resources, the total falls short by 8.29%.

1. The estimate for Weymouth & Portland's total energy consumption in 2020 is 985.3094 GWh.
2. The renewable energy target for 2020 is 15% of total energy consumption or 147.80 GWh.
3. The estimate for the contribution of national resources to Weymouth & Portland's target is 50% or 73.90 GWh.
4. The estimate for renewable energy generation from all sources in Weymouth & Portland in 2020 is 62.90 GWh.

**Table 1**  
**The Strategy's Estimates for Weymouth & Portland's Practicably Accessible Resources Without Landscape Constraint**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 2.00                    | 0.27            | 4.73                    | 7.52                        | 0.8                       |
| 2 Biomass               | 5.29                    | 0.4126          | 19.12                   | 30.40                       |                           |
| 3 Heat pumps            | 20.61                   | 0.10            | 18.05                   | 28.70                       |                           |
| 4 Solar photovoltaic    | 12.73                   | 0.10            | 11.15                   | 17.73                       |                           |
| 5 Solar thermal         | 10.94                   | 0.10            | 9.58                    | 15.23                       |                           |
| 6 Small hydro power     | 0.06                    | 0.50            | 0.26                    | 0.42                        |                           |
| <b>TOTAL</b>            | <b>51.63</b>            | <b>0.14</b>     | <b>62.90</b>            | <b>100.00</b>               |                           |

**Table 2**  
**This Table shows estimates for maximum possible contributions from national and local renewable energy sources and indicates the magnitude of Weymouth & Portland's inability to reach the Target.**

| Item   | Installed Capacity (MW) | Capacity Factor  | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|--|-------------------------|------------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Weymouth & Portland large onshore wind         | 2.00                    | 0.27             | 4.73                    | 3.20                     | 100.00                    | 0.8                       |
| 2 Weymouth & Portland biomass                    | 5.29                    | 0.41             | 19.12                   | 12.94                    | 100.00                    |                           |
| 3 Weymouth & Portland heat pumps                 | 20.61                   | 0.10             | 18.05                   | 12.22                    | 100.00                    |                           |
| 4 Weymouth & Portland solar photovoltaic         | 12.73                   | 0.10             | 11.15                   | 7.55                     | 100.00                    |                           |
| 5 Weymouth & Portland solar thermal              | 10.94                   | 0.10             | 9.58                    | 6.48                     | 100.00                    |                           |
| 6 Weymouth & Portland small hydro power          | 0.06                    | 0.50             | 0.26                    | 0.18                     | 100.00                    |                           |
| <b>Weymouth &amp; Portland contribution 6.3%</b> | <b>51.63</b>            | <b>0.14</b>      | <b>62.90</b>            | <b>42.56</b>             | <b>100.00</b>             |                           |
| <b>National contribution 7.5%</b>                | Unknown                 | Unknown          | <b>73.90</b>            | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                                     | Unknown                 | Unknown          | <b>136.80</b>           | <b>92.56</b>             |                           |                           |
|  |                         | <b>TARGET</b>    | <b>147.80</b>           |                          |                           |                           |
|  |                         | <b>SHORTFALL</b> | <b>10.99</b>            | <b>7.44</b>              |                           |                           |

**THE RENEWABLE ENERGY TARGET FOR BOURNEMOUTH ARISING OUT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY TO 2020**

The Dorset Energy Partnership has proposed an aspirational target of at least 15% of Bournemouth's energy needs to be met by renewable sources by 2020.

The data provided below indicate that the estimates for Bournemouth's renewable energy resources are, collectively, insufficient to allow the Target to be met. When added to the contribution from national resources, the total falls short by 21.41%.

1. The estimate for Bournemouth's total energy consumption in 2020 is 2,918.70 GWh.
2. The renewable energy target for 2020 is 15% of total energy consumption or 437.80 GWh.
3. The estimate for the contribution of national resources to Bournemouth's target is 50% or 218.90 GWh.
4. The estimate for renewable energy generation from all sources in Bournemouth in 2020 is 129.46 GWh.

**Table 1**  
**The Strategy's Estimates for Bournemouth's Practicably Accessible Resources Without Landscape Constraint**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 0.00                    | 0.27            | 0.00                    | 0.00                        | 0.0                       |
| 2 Biomass               | 14.87                   | 0.4102          | 53.43                   | 41.27                       |                           |
| 3 Heat pumps            | 19.80                   | 0.10            | 17.34                   | 13.40                       |                           |
| 4 Solar photovoltaic    | 36.89                   | 0.10            | 32.32                   | 24.96                       |                           |
| 5 Solar thermal         | 30.10                   | 0.10            | 26.37                   | 20.37                       |                           |
| 6 Small hydro power     | 0.00                    | 0.50            | 0.00                    | 0.00                        |                           |
| <b>TOTAL</b>            | <b>101.66</b>           | <b>0.15</b>     | <b>129.46</b>           | <b>100.00</b>               |                           |

**Table 2**  
**This Table shows estimates for maximum possible contributions from national and local renewable energy sources and indicates the magnitude of Bournemouth's inability to reach the Target.**

| Item                                 | Installed Capacity (MW) | Capacity Factor  | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|--------------------------------------|-------------------------|------------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Bournemouth large onshore wind     | 0.00                    | 0.27             | 0.00                    | 0.00                     | 100.00                    | 0.0                       |
| 2 Bournemouth biomass                | 14.87                   | 0.41             | 53.43                   | 12.20                    | 100.00                    |                           |
| 3 Bournemouth heat pumps             | 19.80                   | 0.10             | 17.34                   | 3.96                     | 100.00                    |                           |
| 4 Bournemouth solar photovoltaic     | 36.89                   | 0.10             | 32.32                   | 7.38                     | 100.00                    |                           |
| 5 Bournemouth solar thermal          | 30.10                   | 0.10             | 26.37                   | 6.02                     | 100.00                    |                           |
| 6 Bournemouth small hydro power      | 0.00                    | 0.50             | 0.00                    | 0.00                     | 100.00                    |                           |
| <b>Bournemouth contribution 4.3%</b> | <b>101.66</b>           | <b>0.15</b>      | <b>129.46</b>           | <b>29.57</b>             | <b>100.00</b>             |                           |
| <b>National contribution 7.5%</b>    | Unknown                 | Unknown          | <b>218.90</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                         | Unknown                 | Unknown          | <b>348.36</b>           | <b>79.57</b>             |                           |                           |
|                                      |                         | <b>TARGET</b>    | <b>437.80</b>           |                          |                           |                           |
|                                      |                         | <b>SHORTFALL</b> | <b>89.44</b>            | <b>20.43</b>             |                           |                           |



**THE RENEWABLE ENERGY TARGET FOR POOLE ARISING OUT OF THE FINAL DRAFT OF THE DORSET RENEWABLE ENERGY STRATEGY TO 2020**

The Dorset Energy Partnership has proposed an aspirational target of at least 15% of Poole's energy needs to be met by renewable sources by 2020.

The data provided below indicate that the estimates for Poole's renewable energy resources are, collectively, insufficient to allow the Target to be met. When added to the contribution from national resources, the total falls short by 25.66%.

1. The estimate for Poole's total energy consumption in 2020 is 3,112.27 GWh.
2. The renewable energy target for 2020 is 15% of total energy consumption or 466.84 GWh.
3. The estimate for the contribution of national resources to Poole's target is 50% or 233.42 GWh.
4. The estimate for renewable energy generation from all sources in Poole in 2020 is 116.81 GWh.

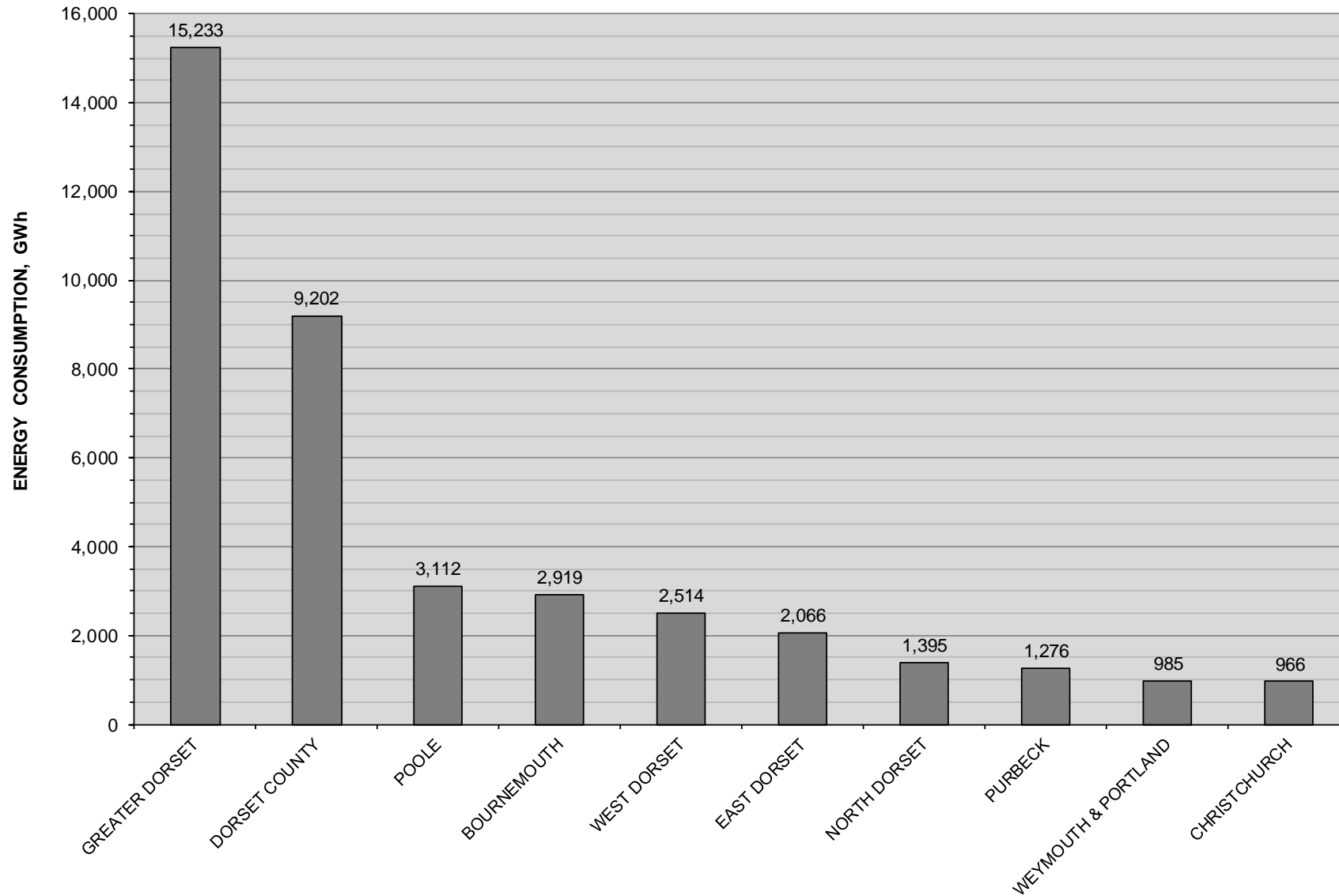
**Table 1**  
**The Strategy's Estimates for Poole's Practicably Accessible Resources Without Landscape Constraint**

| Renewable Energy Source | Installed Capacity (MW) | Capacity Factor | Energy Generation (GWh) | % Contribution to Resources | Number of 2.5 MW Turbines |
|-------------------------|-------------------------|-----------------|-------------------------|-----------------------------|---------------------------|
| 1 Large onshore wind    | 2.00                    | 0.27            | 4.73                    | 4.05                        | 0.8                       |
| 2 Biomass               | 15.79                   | 0.3599          | 49.78                   | 42.62                       |                           |
| 3 Heat pumps            | 14.88                   | 0.10            | 13.03                   | 11.16                       |                           |
| 4 Solar photovoltaic    | 30.77                   | 0.10            | 26.95                   | 23.08                       |                           |
| 5 Solar thermal         | 25.46                   | 0.10            | 22.30                   | 19.09                       |                           |
| 6 Small hydro power     | 0.00                    | 0.50            | 0.00                    | 0.00                        |                           |
| <b>TOTAL</b>            | <b>88.90</b>            | <b>0.15</b>     | <b>116.81</b>           | <b>100.00</b>               |                           |

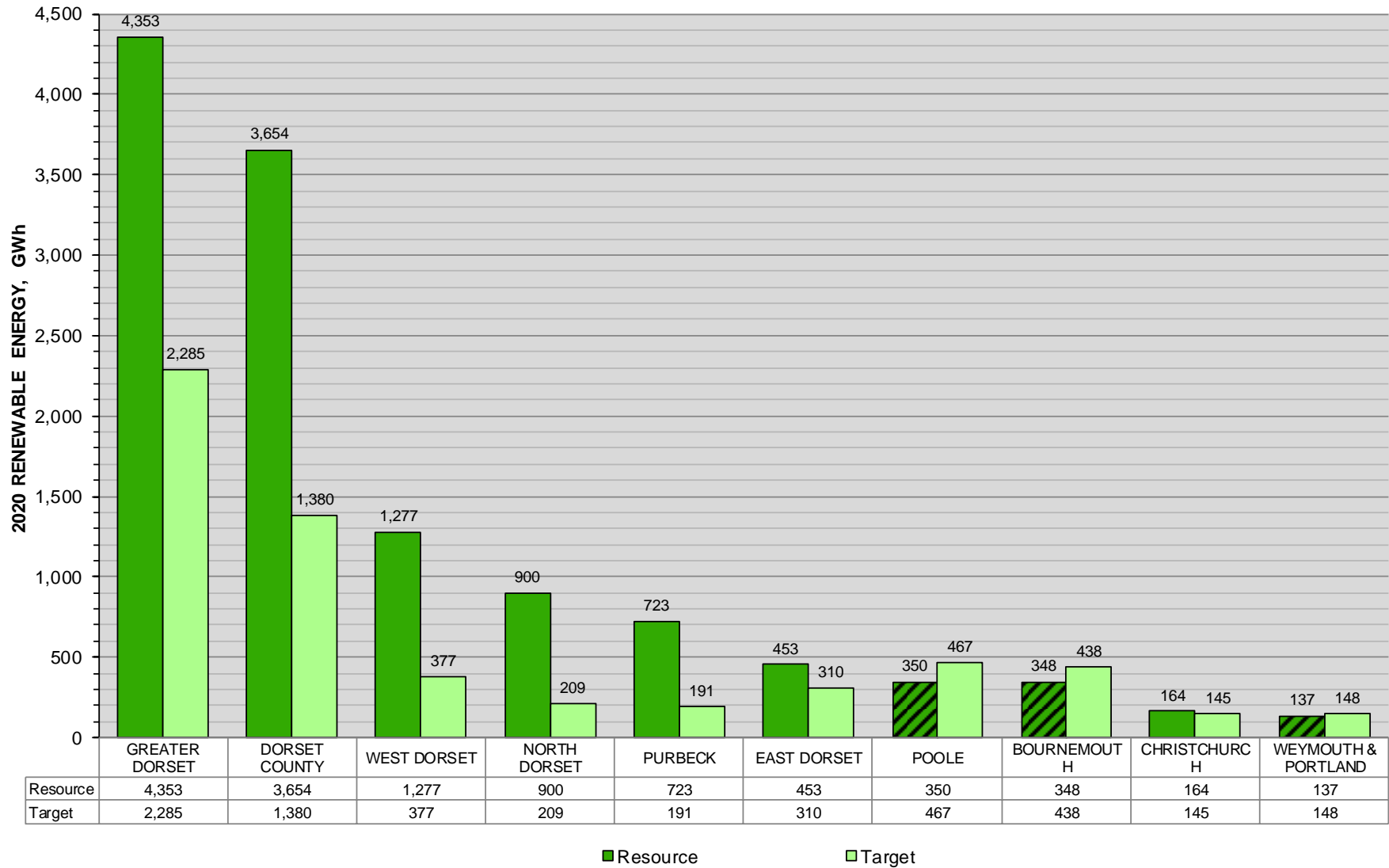
**Table 2**  
**This Table shows estimates for maximum possible contributions from national and local renewable energy sources and indicates the magnitude of Poole's inability to reach the Target.**

| Item                              | Installed Capacity (MW) | Capacity Factor  | Energy Generation (GWh) | % Contribution to Target | % of Practicable Resource | Number of 2.5 MW Turbines |
|-----------------------------------|-------------------------|------------------|-------------------------|--------------------------|---------------------------|---------------------------|
| 1 Poole large onshore wind        | 2.00                    | 0.27             | 4.73                    | 1.01                     | 100.00                    | 0.8                       |
| 2 Poole biomass                   | 15.79                   | 0.36             | 49.78                   | 10.66                    | 100.00                    |                           |
| 3 Poole heat pumps                | 14.88                   | 0.10             | 13.03                   | 2.79                     | 100.00                    |                           |
| 4 Poole solar photovoltaic        | 30.77                   | 0.10             | 26.95                   | 5.77                     | 100.00                    |                           |
| 5 Poole solar thermal             | 25.46                   | 0.10             | 22.30                   | 4.78                     | 100.00                    |                           |
| 6 Poole small hydro power         | 0.00                    | 0.50             | 0.00                    | 0.00                     | 100.00                    |                           |
| <b>Poole contribution 3.7%</b>    | <b>88.90</b>            | <b>0.15</b>      | <b>116.81</b>           | <b>25.02</b>             | <b>100.00</b>             |                           |
| <b>National contribution 7.5%</b> | Unknown                 | Unknown          | <b>233.42</b>           | <b>50.00</b>             | Unknown                   |                           |
| <b>TOTAL</b>                      | Unknown                 | Unknown          | <b>350.23</b>           | <b>75.02</b>             |                           |                           |
|                                   |                         | <b>TARGET</b>    | <b>466.84</b>           |                          |                           |                           |
|                                   |                         | <b>SHORTFALL</b> | <b>116.61</b>           | <b>24.98</b>             |                           |                           |

**Figure 1 DORSET'S ESTIMATED 2020 ENERGY CONSUMPTION**  
INCLUDES HEAT, ELECTRICITY AND TRANSPORT



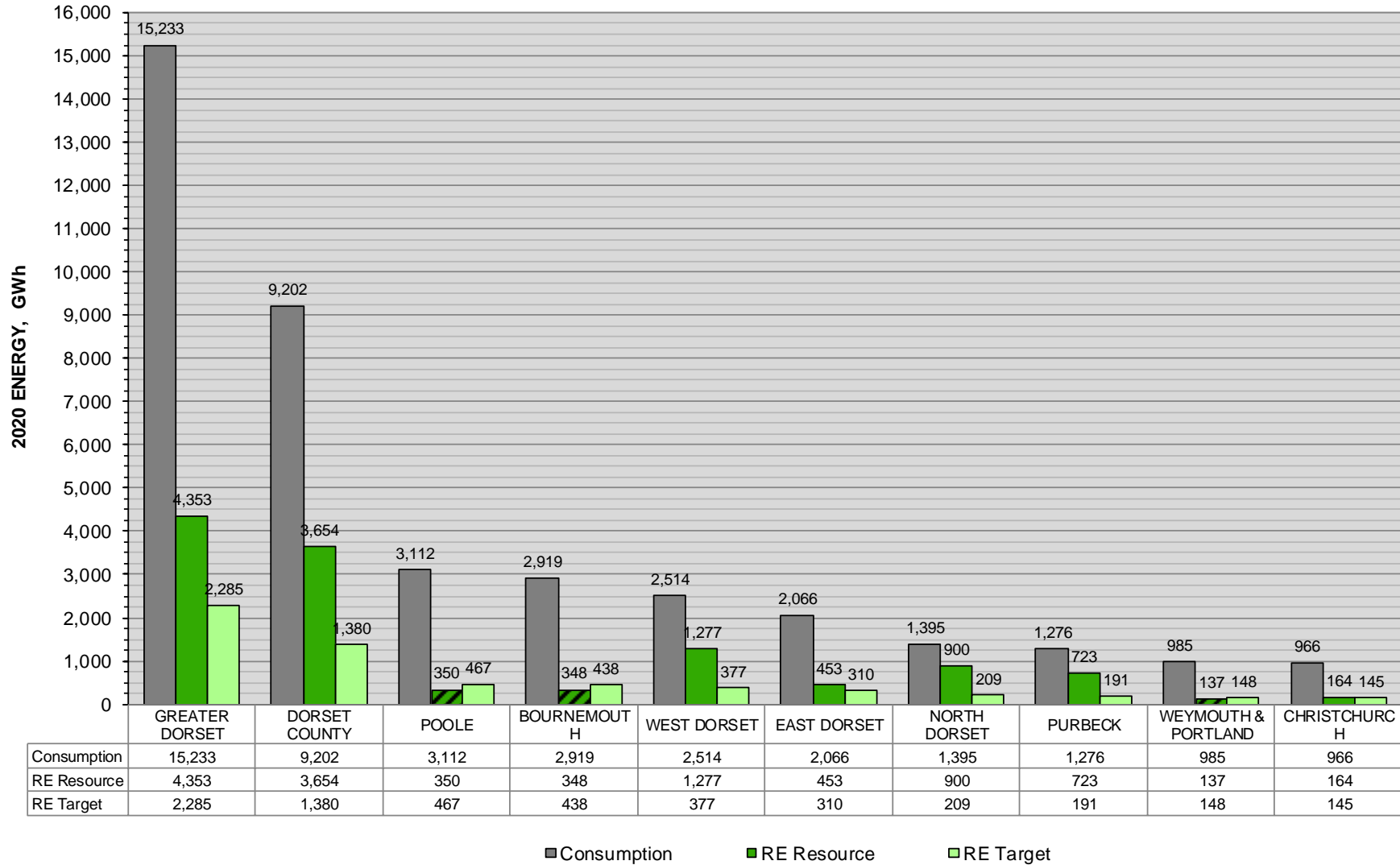
**Figure 2 DORSET'S 2020 RENEWABLE ENERGY RESOURCES AND TARGETS**  
 RESOURCES INCLUDE A CONTRIBUTION FROM NATIONAL RESOURCES EQUIVALENT TO 7.5% OF TOTAL LOCAL CONSUMPTION



NOTE: AREAS ARE SHOWN IN DECREASING ORDER OF RESOURCE AND CROSSHATCHED COLUMNS INDICATE RESOURCE IS BELOW TARGET

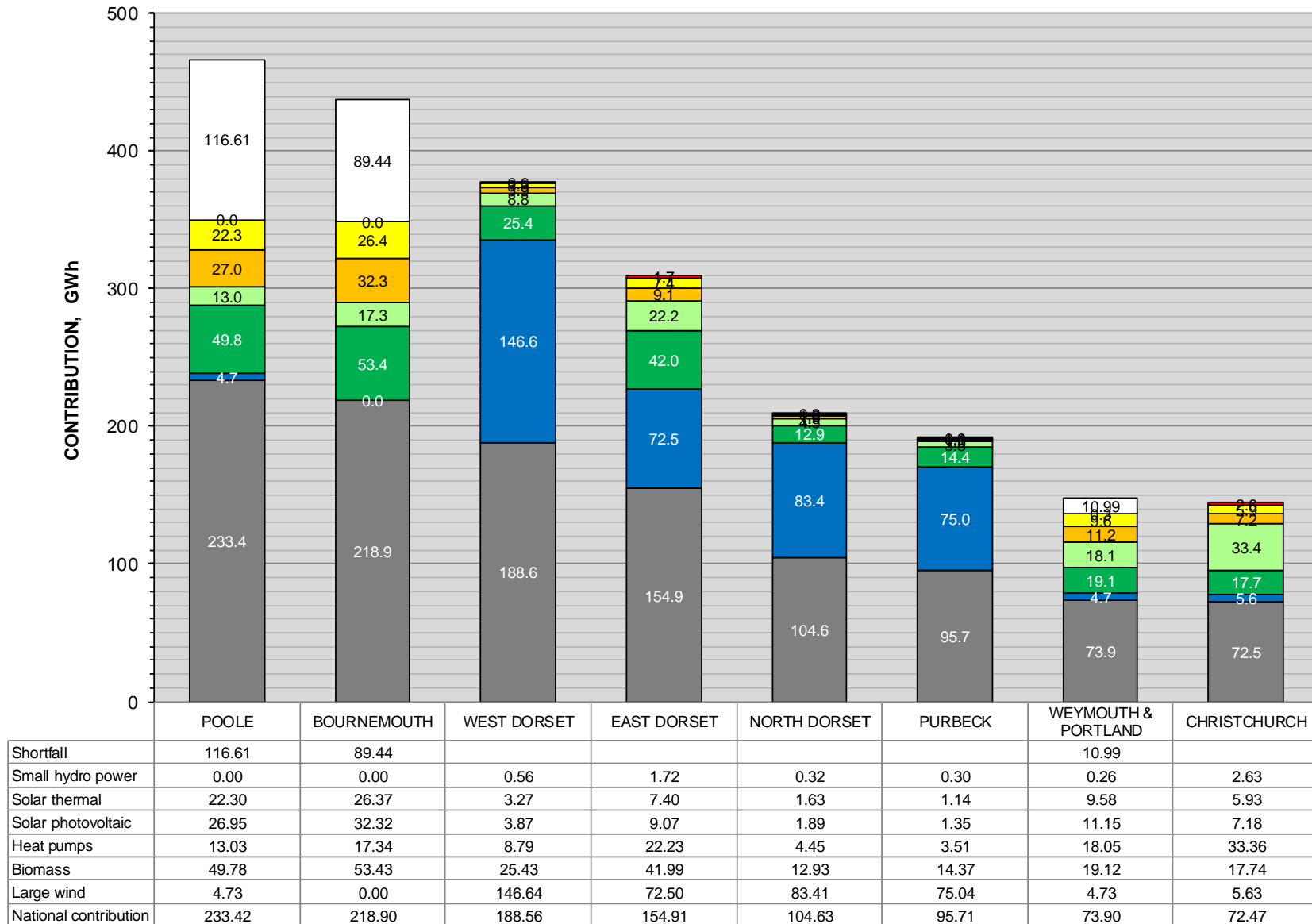
**Figure 3 DORSET'S 2020 ENERGY CONSUMPTION AND RENEWABLE ENERGY RESOURCES & TARGETS**

RESOURCES INCLUDE A CONTRIBUTION FROM NATIONAL RESOURCES EQUIVALENT TO 7.5% OF 2020 TOTAL LOCAL CONSUMPTION



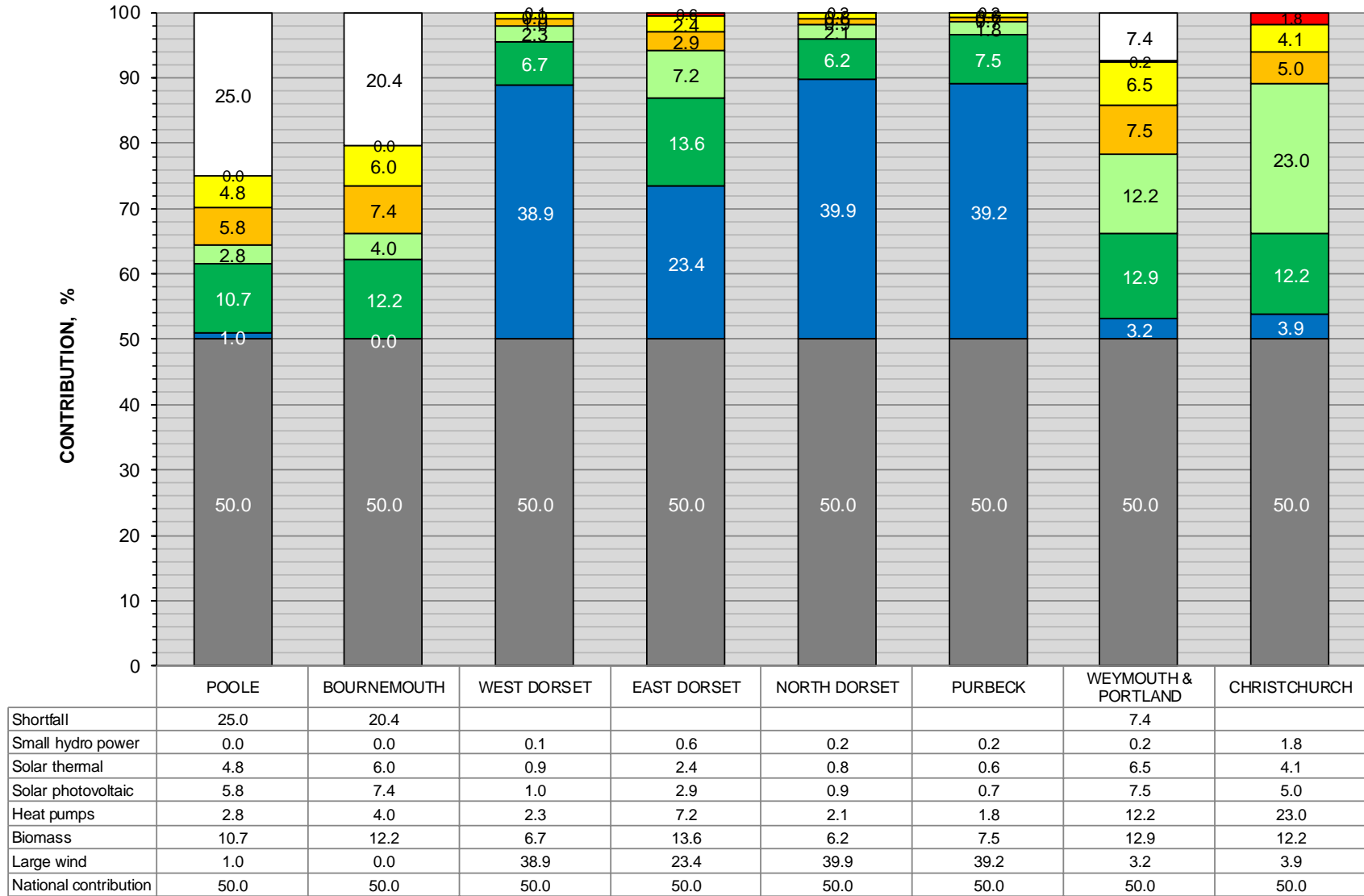
**NOTE: CROSSHATCHED COLUMNS INDICATE RESOURCE IS BELOW TARGET**

**Figure 4 MEETING DORSET'S 2020 RENEWABLE ENERGY TARGETS (SCENARIO 1)**  
**EACH TECHNOLOGY MAKES A PROPORTIONATE CONTRIBUTION TOWARDS THE LOCAL RENEWABLE ENERGY TARGET**



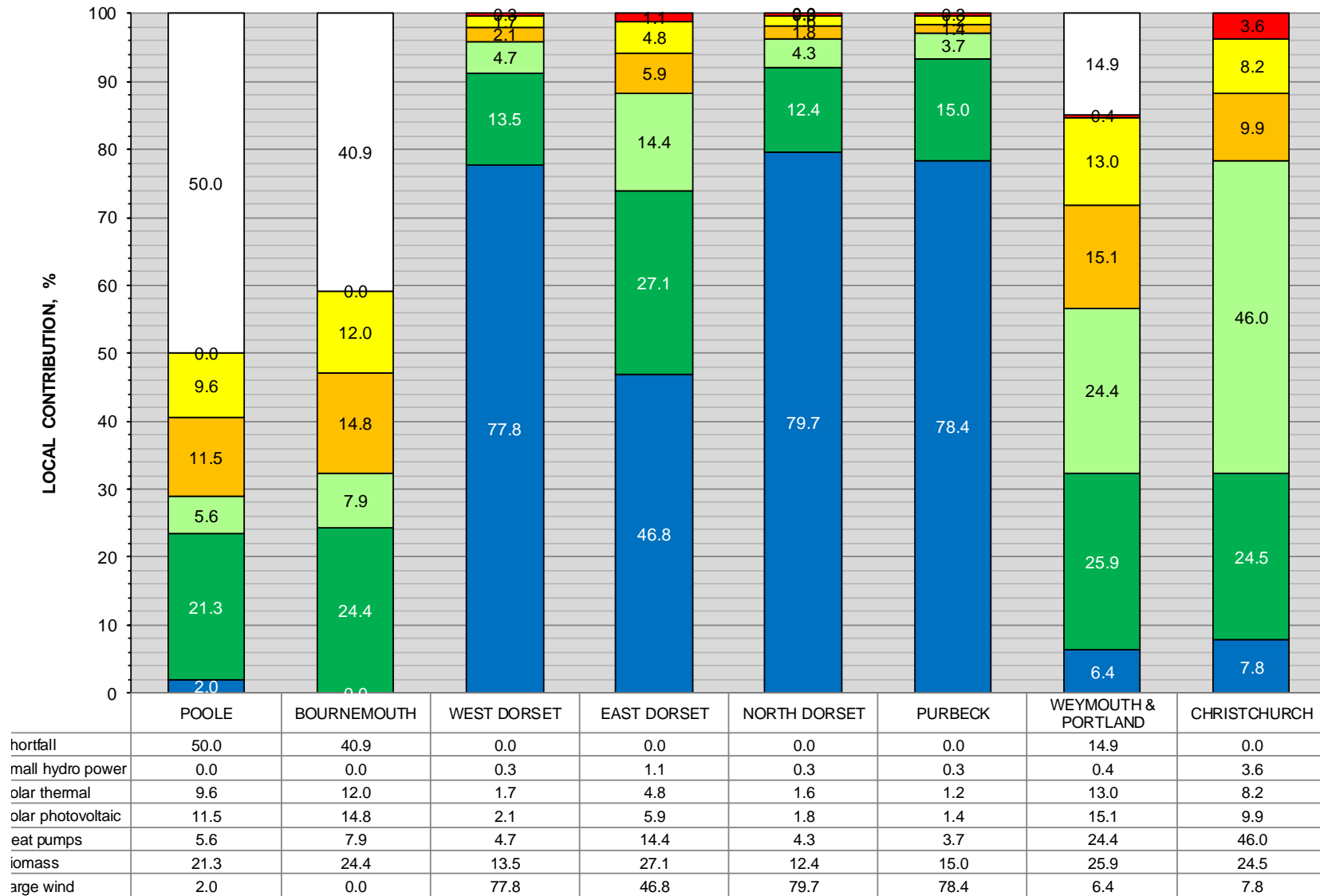
**NOTE: THIS FIGURE SHOWS THE CONTRIBUTION FROM NATIONAL RESOURCES**

**Figure 5 MEETING DORSET'S 2020 RENEWABLE ENERGY TARGETS (SCENARIO 1)**  
**EACH TECHNOLOGY MAKES A PROPORTIONATE CONTRIBUTION TOWARDS THE LOCAL RENEWABLE ENERGY TARGET**



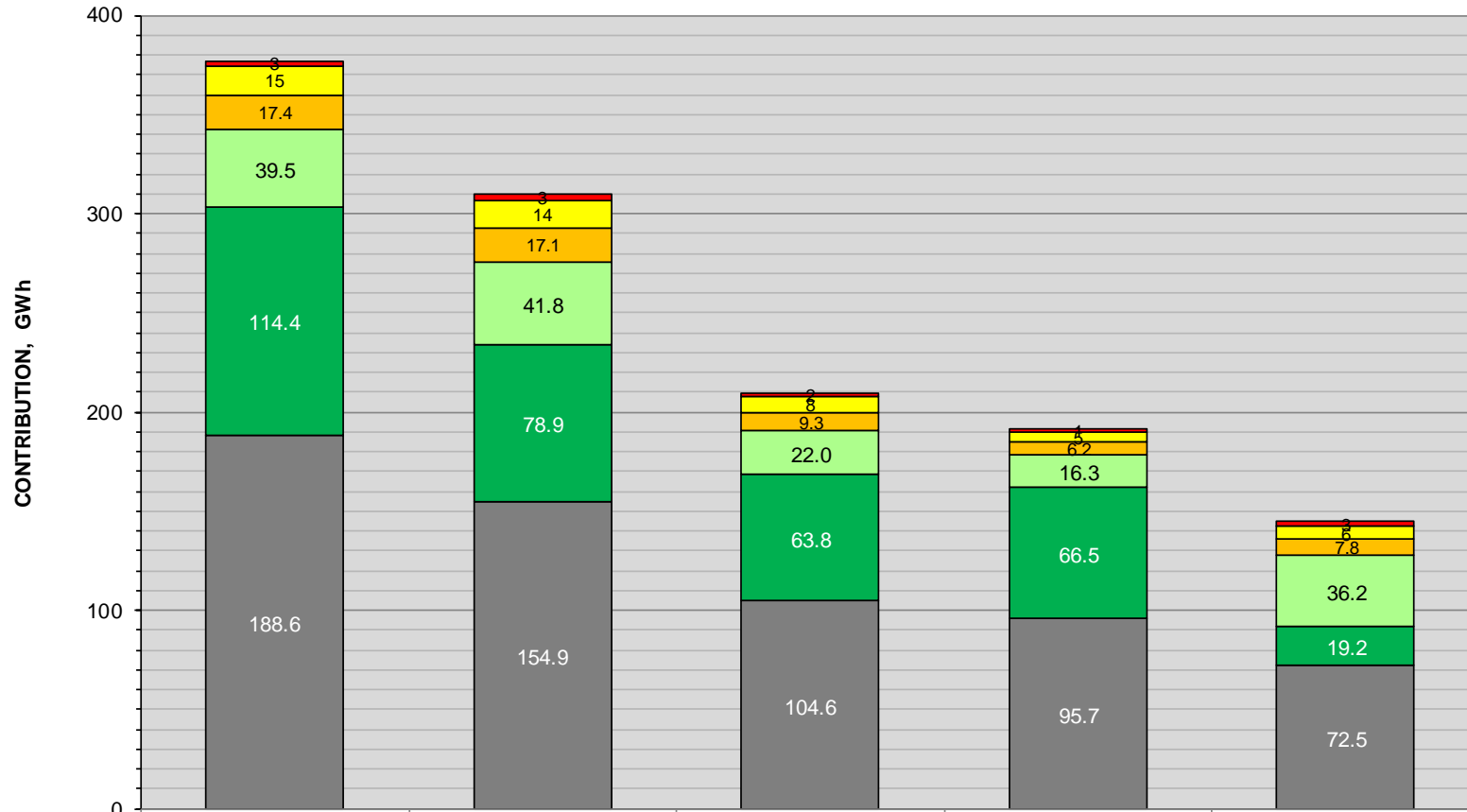
**NOTE: THIS FIGURE SHOWS THE CONTRIBUTION FROM NATIONAL RESOURCES**

**Figure 6 MEETING DORSET'S 2020 RENEWABLE ENERGY TARGETS (SCENARIO 1)**  
**EACH TECHNOLOGY MAKES A PROPORTIONATE CONTRIBUTION TOWARDS THE LOCAL RENEWABLE ENERGY TARGET**



NOTE: THIS FIGURE DOES NOT SHOW THE CONTRIBUTION FROM NATIONAL RESOURCES

**Figure 7 MEETING DORSET'S 2020 RENEWABLE ENERGY TARGETS (SCENARIO 2)**  
 EACH TECHNOLOGY, EXCEPT FOR WIND WHICH CONTRIBUTES ZERO,  
 MAKES A PROPORTIONATE CONTRIBUTION TOWARDS THE LOCAL TARGET

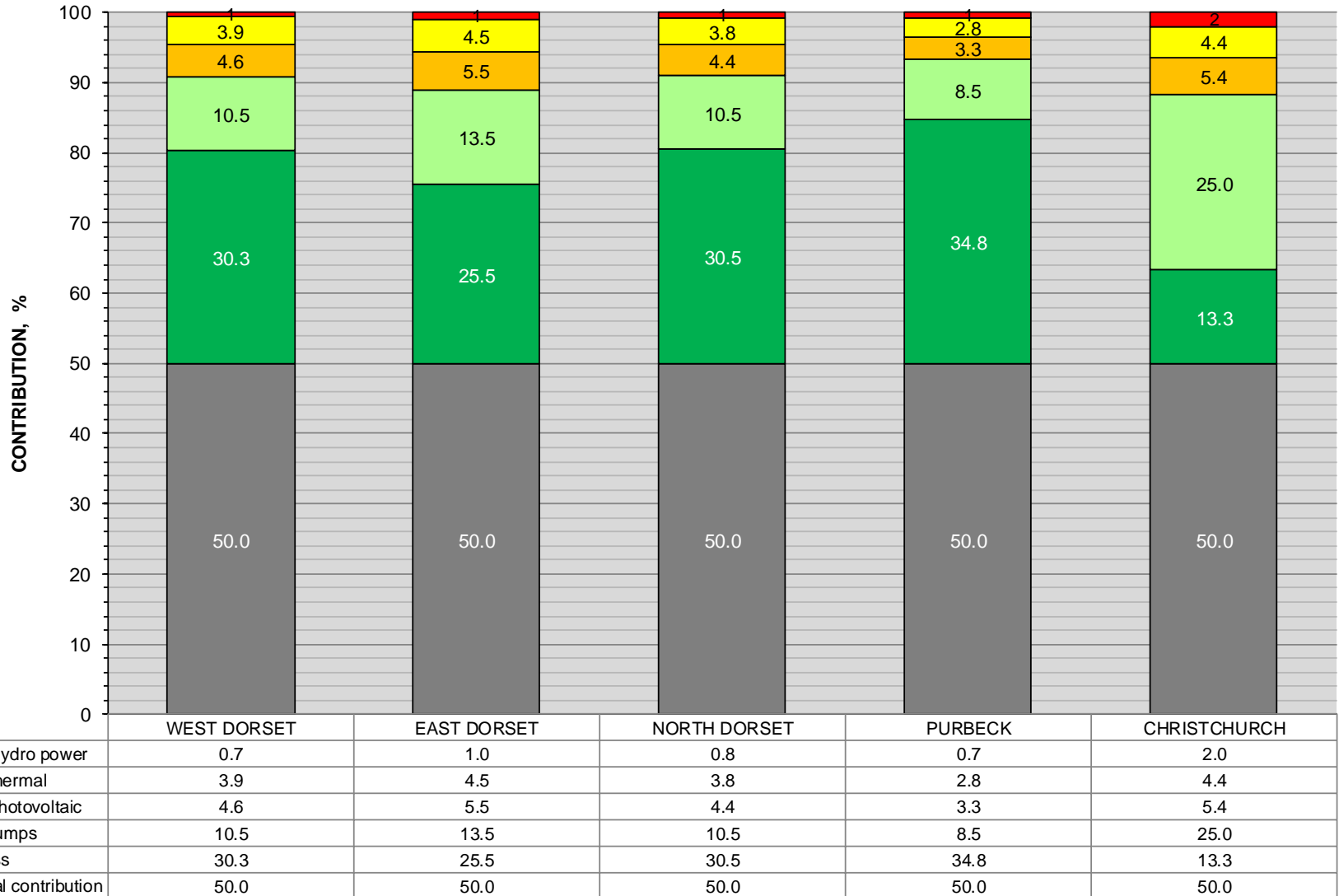


|                       | WEST DORSET | EAST DORSET | NORTH DORSET | PURBECK | CHRISTCHURCH |
|-----------------------|-------------|-------------|--------------|---------|--------------|
| Small hydro power     | 2.53        | 3.23        | 1.59         | 1.39    | 2.85         |
| Solar thermal         | 14.71       | 13.91       | 8.02         | 5.27    | 6.43         |
| Solar photovoltaic    | 17.39       | 17.05       | 9.31         | 6.25    | 7.78         |
| Heat pumps            | 39.55       | 41.79       | 21.96        | 16.26   | 36.18        |
| Biomass               | 114.38      | 78.93       | 63.76        | 66.55   | 19.24        |
| National contribution | 188.56      | 154.91      | 104.63       | 95.71   | 72.47        |

NOTE: THIS FIGURE SHOWS THE CONTRIBUTION FROM NATIONAL RESOURCES

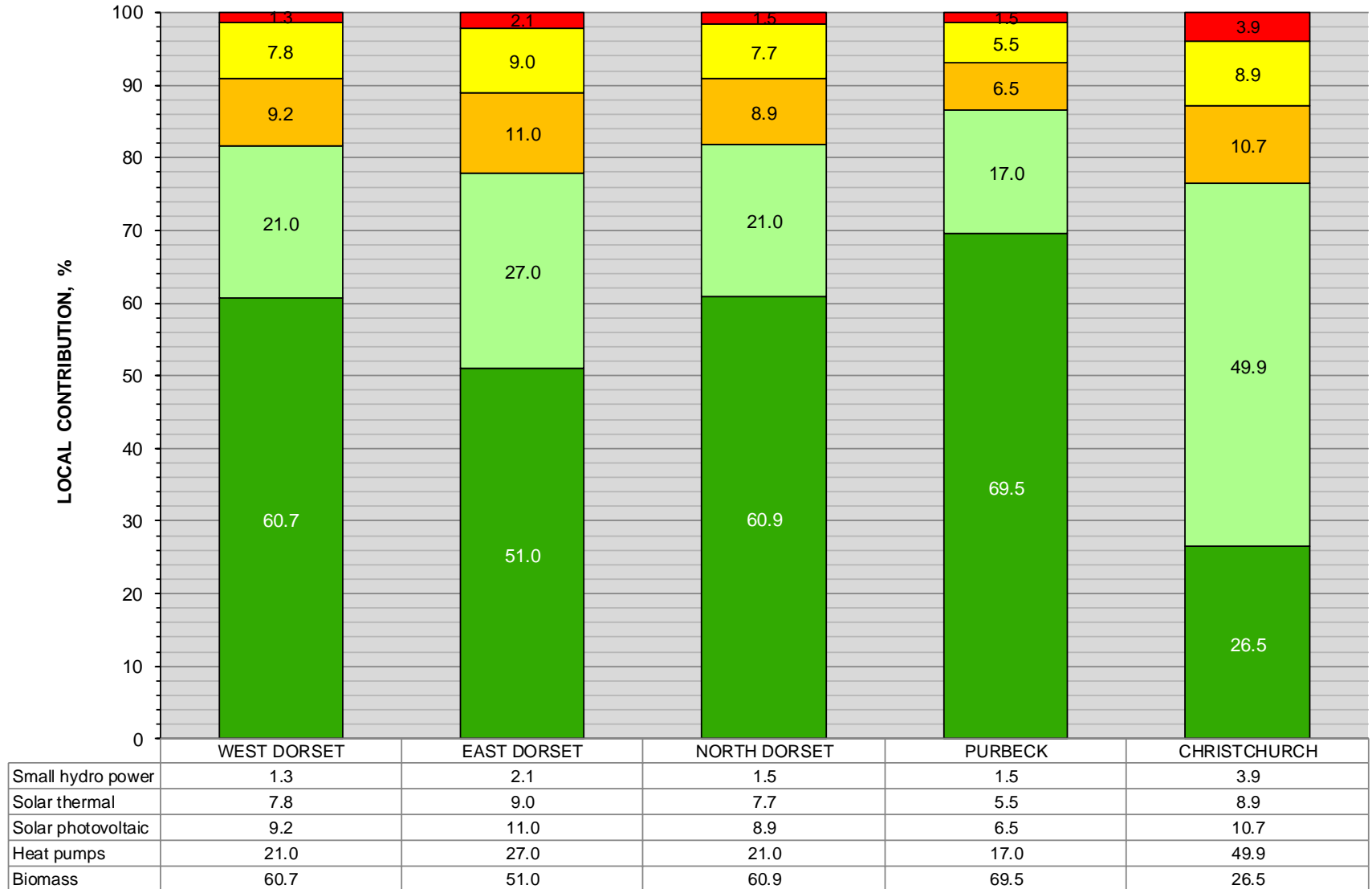


**Figure 8 MEETING DORSET'S 2020 RENEWABLE ENERGY TARGETS (SCENARIO 2)**  
 EACH TECHNOLOGY, EXCEPT FOR WIND WHICH CONTRIBUTES ZERO,  
 MAKES A PROPORTIONATE CONTRIBUTION TOWARDS THE LOCAL TARGET



**NOTE: THIS FIGURE SHOWS THE CONTRIBUTION FROM NATIONAL RESOURCES**

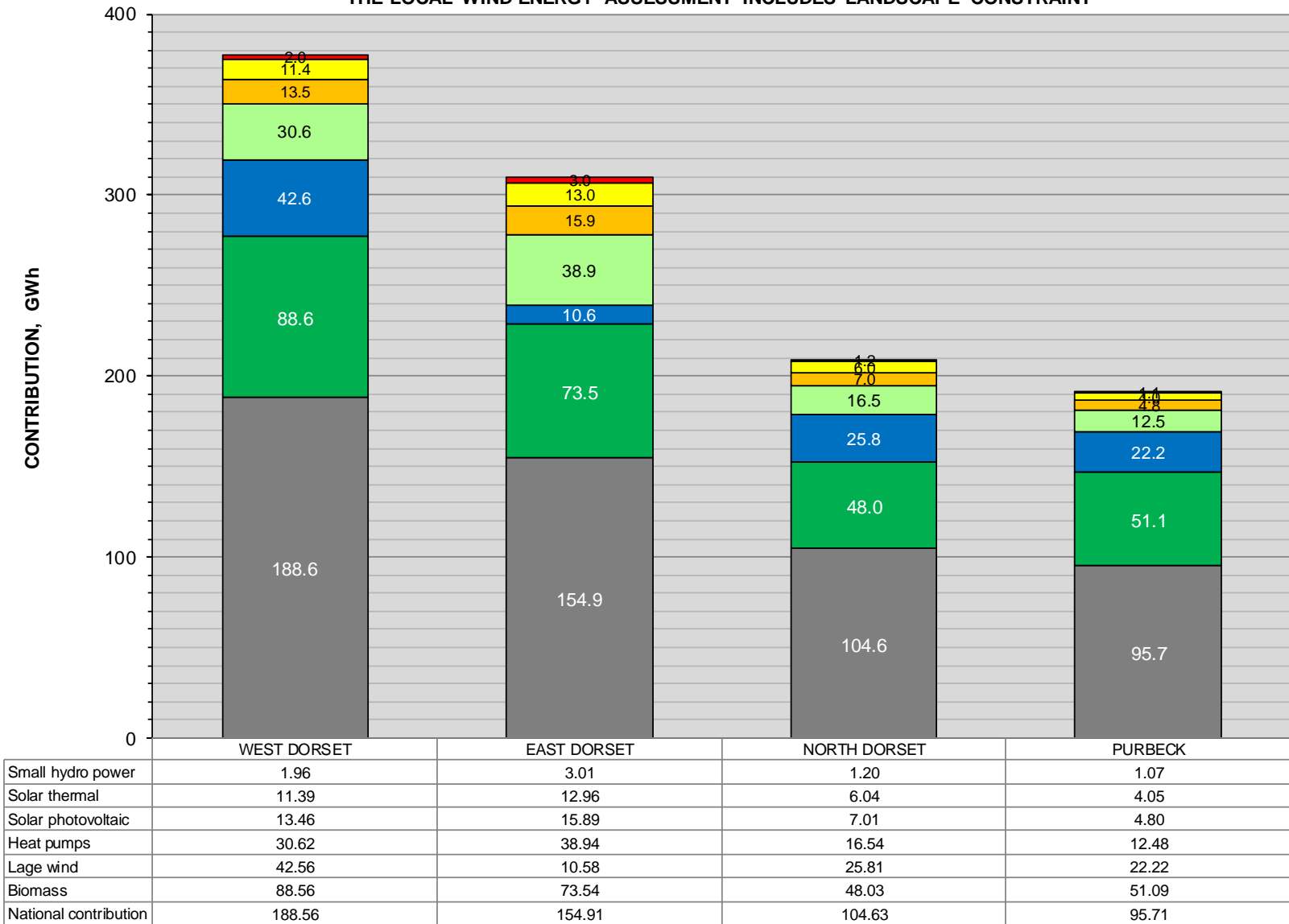
**Figure 9 MEETING DORSET'S 2020 RENEWABLE ENERGY TARGETS (SCENARIO 2)**  
 EACH TECHNOLOGY, EXCEPT FOR WIND WHICH CONTRIBUTES ZERO,  
 MAKES A PROPORTIONATE CONTRIBUTION TOWARDS THE LOCAL TARGET



NOTE: THIS FIGURE DOES NOT SHOW THE CONTRIBUTION FROM NATIONAL RESOURCES

**Figure 10 MEETING DORSET'S 2020 RENEWABLE ENERGY TARGETS (SCENARIO 3)**

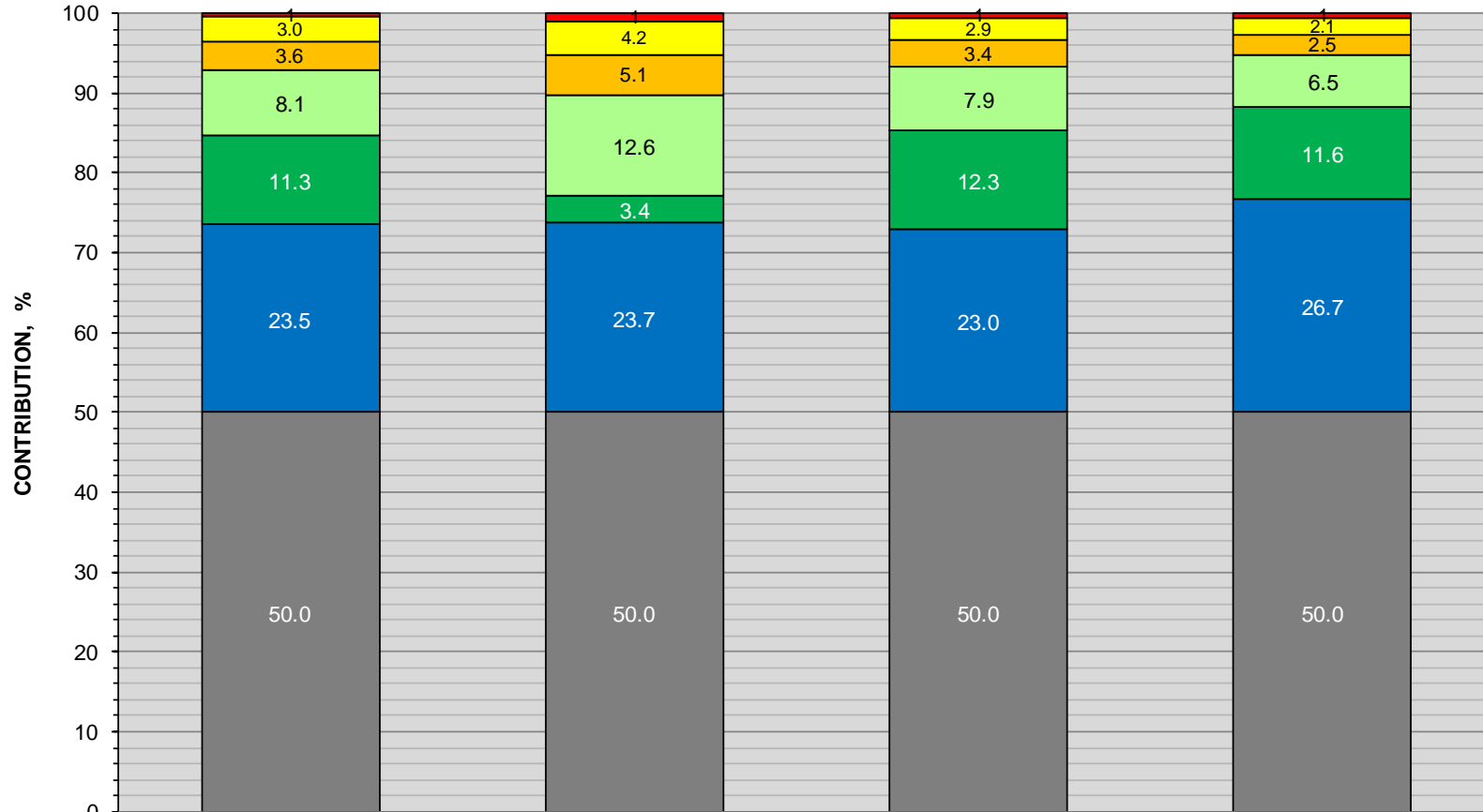
SCENARIO 3 IS SIMILAR TO SCENARIO 1 EXCEPT THAT  
THE LOCAL WIND ENERGY ASSESSMENT INCLUDES LANDSCAPE CONSTRAINT



NOTE: THIS FIGURE SHOWS THE CONTRIBUTION FROM NATIONAL RESOURCES

**Figure 11 MEETING DORSET'S 2020 RENEWABLE ENERGY TARGETS (SCENARIO 3)**

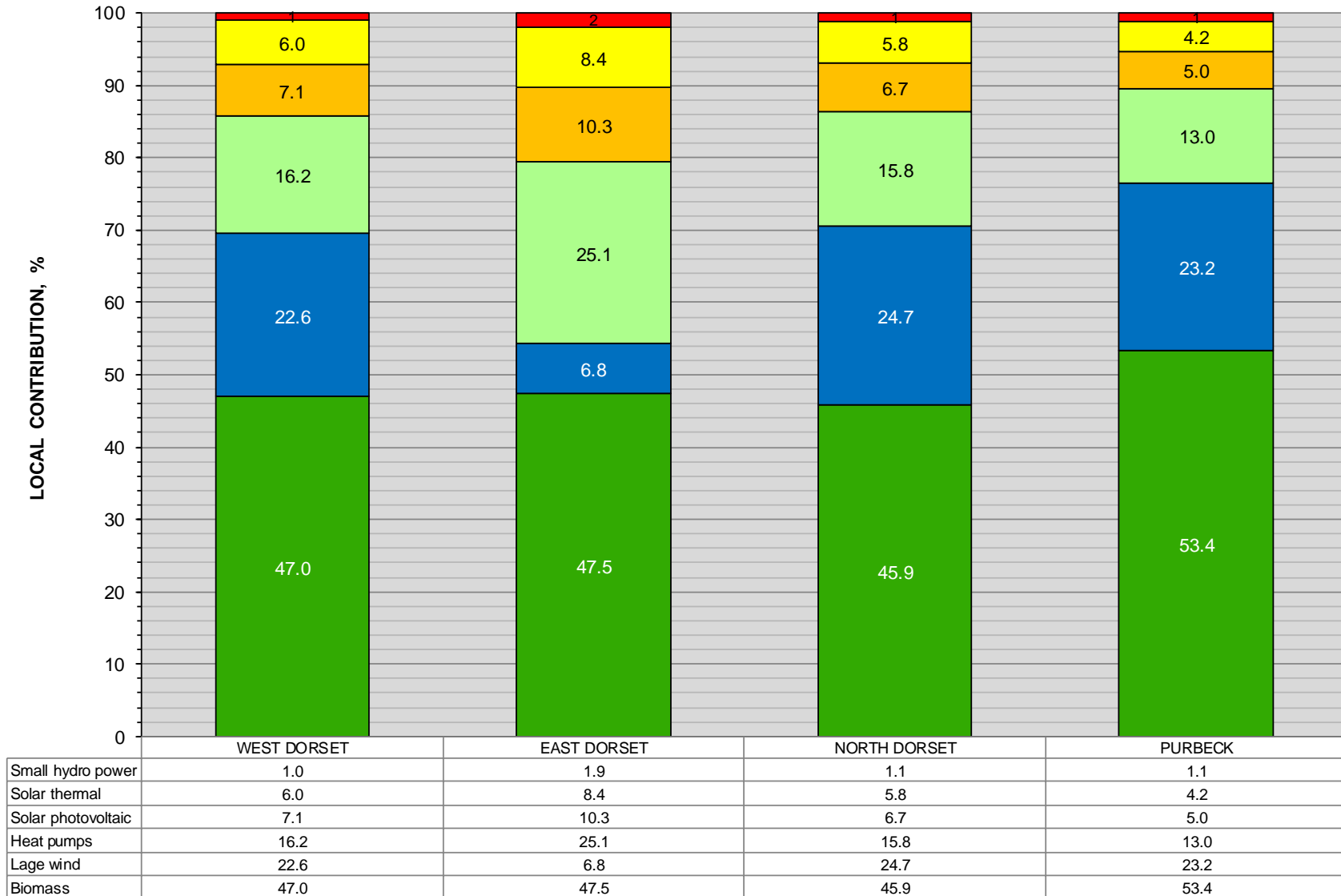
SCENARIO 3 IS SIMILAR TO SCENARIO 1 EXCEPT THAT  
THE LOCAL WIND ENERGY ASSESSMENT INCLUDES LANDSCAPE CONSTRAINT



|                       | WEST DORSET | EAST DORSET | NORTH DORSET | PURBECK |
|-----------------------|-------------|-------------|--------------|---------|
| Small hydro power     | 0.5         | 1.0         | 0.6          | 0.6     |
| Solar thermal         | 3.0         | 4.2         | 2.9          | 2.1     |
| Solar photovoltaic    | 3.6         | 5.1         | 3.4          | 2.5     |
| Heat pumps            | 8.1         | 12.6        | 7.9          | 6.5     |
| Large wind            | 11.3        | 3.4         | 12.3         | 11.6    |
| Biomass               | 23.5        | 23.7        | 23.0         | 26.7    |
| National contribution | 50.0        | 50.0        | 50.0         | 50.0    |

NOTE: THIS FIGURE SHOWS THE CONTRIBUTION FROM NATIONAL RESOURCES

**Figure 12 MEETING DORSET'S 2020 RENEWABLE ENERGY TARGETS (SCENARIO 3)**  
 SCENARIO 3 IS SIMILAR TO SCENARIO 1 EXCEPT THAT  
 THE LOCAL WIND ENERGY ASSESSMENT INCLUDES LANDSCAPE CONSTRAINT



**NOTE: THIS FIGURE DOES NOT SHOW THE CONTRIBUTION FROM NATIONAL RESOURCES**