


# Regional Renewable Energy Strategy for the South West of England 2003-2010

With foreword from Rt Hon Patricia Hewitt MP, Secretary of State for Trade and Industry

## FOREWORD

In our recent Energy White Paper (“Our Energy Future: Creating a Low Carbon Economy”) the Government laid out a new direction for energy policy. A direction which will allow us to meet the challenge of cutting carbon emissions, whilst also providing affordable energy and ensuring reliable energy supplies. We set out a vision for a cleaner, smarter energy system to do this. Renewable energy is at the heart of that vision.

I am therefore delighted to see the South West grasping the opportunities that renewable energy provides and integrating its role with other key regional developments. It is clear that the South West has the natural resources to generate significant amounts of power from renewable energy. But that potential is nothing without the imagination and commitment to establish new renewable projects on the ground. The action plan set out in this regional strategy has a strong emphasis on partnership and shows how this potential can be captured for the benefit of the economy and communities of the South West. It also highlights the huge economic benefits that could accrue to the region if it is successful in stimulating new energy technology businesses. I commend this approach and look forward to following the development of this exciting plan over the next three years.

A handwritten signature in black ink, appearing to read 'Patricia Hewitt', with a stylized flourish at the end.

The Rt Hon Patricia Hewitt MP  
Secretary of State for Trade and Industry

# Contents

Executive Summary

<b>1 RENEWABLE ENERGY IN THE SOUTH WEST</b>		<b>4 DEPLOYING RENEWABLE ENERGY ON THE GROUND</b>		<b>7 ACTION PLAN TIMELINE</b>	38
1.1 Background	6	4.1 Background	15	<b>8 NEXT STEPS</b>	
1.2 Renewable Energy Potential in the South West	7	4.2 Barriers to Development	16	8.1 Who Should be Involved	40
1.3 Working with Countryside Character in the South West	8	4.3 Opportunities for Development	17	8.2 Regen SW	42
1.4 Structure of this Strategy document	8			8.3 Review, Monitoring and Feedback	42
		<b>5 DEVELOPING SKILLS AND AWARENESS</b>		8.4 Looking to 2020	42
<b>2 A RENEWABLE ENERGY STRATEGY FOR THE SOUTH WEST</b>		5.1 Background	25	<b>REFERENCES</b>	43
2.1 Background	9	5.2 Barriers to Development	25	<b>ANNEX 1:</b>	44
2.2 Regen SW	9	5.3 Opportunities for Development	26	Members of the Renewable Energy Group	
2.3 Ownership	10			<b>ANNEX 2:</b>	46
2.4 Scope of this Strategy	10	<b>6 BUILDING THE SW RENEWABLE ENERGY INDUSTRY</b>		Links to International, National and Regional Policy and Practice	
		6.1 Background	34	<b>ANNEX 3:</b>	49
<b>3 WHERE ARE WE GOING?</b>		6.2 Barriers to Development	34	Target Audiences	
3.1 Vision	12	6.3 Opportunities for Development	35	<b>ANNEX 4:</b>	51
3.2 Strategic Aims	12			Organisations Endorsing this Strategy	
3.3 Objectives	12			Glossary	
3.4 Key Enabling Actions	13				

# Executive Summary

## RENEWABLE ENERGY AND THE SOUTH WEST

The seas, skies and land of the South West provide a huge abundance of renewable energy. The region is beginning to capture some of that potential. It was a pioneer in wind energy with the first ever commercial wind farm being established in Cornwall in 1991. In addition to a number of wind farms and several small hydro sites the South West has a growing number of renewable energy plants based on biomass, waste, ground source heat and solar energy.

The environmental sector already supports around 100,000 jobs and contributes £1.6 billion to the region's economy. The South West Regional Development Agency has identified environmental technology as one of the largest growth sectors for the region, with renewable energy expected to play a significant role. The Regional Economic Strategy suggests that the renewable energy sector could create 12,000 new jobs and generate an extra £260 million for the region's economy over a ten year period.

The Government's Energy White Paper set out a vision for a cleaner, smarter energy system. For the first time it makes reducing carbon emissions a central plank of energy policy. Renewable energy is at the heart of its vision. It reinforces the importance of the national target for 10 per cent of the UK's electricity to come from renewable sources by 2010, and sets out to double this by 2020. The big challenge now is to deliver these aims. The South West Renewable Energy Strategy is this region's response to that challenge of delivery. It reinforces the commitment in the South West to take support for renewable energy from aspiration to implementation.

## A STRATEGY FOR RENEWABLE ENERGY IN THE SOUTH WEST

The Government Office for the South West (GOSW) commissioned a report, Renewable Energy Assessment and Targets for the South West, to look at the potential for the development of renewable energy over the next decade. This report resulted in the setting of a South West renewable electricity generation target of 11-15 per cent by 2010. This is a challenging target for the region to meet, given that renewable electricity constitutes only a little over 1 per cent of generation at present, but achieving the target will bring wide-ranging benefits to the region.

During 2002 the South West Renewable Energy Group held a series of consultations to help draw up a strategy for achieving this target for the region.

## FOCUS OF THE STRATEGY

The overall vision is;

“to maximise the social, environmental and economic benefits of renewable energy through the integration of renewable energy into mainstream policy and practice at all levels within the region.”

The strategy then identifies three areas where a regional focus is required:

- Deploying renewable energy on the ground
- Developing skills and awareness
- Building the South West renewable energy industry

It incorporates a practical action plan for each of these areas including timescales, suggestions for target audiences and indicators for measuring success.

**Deploying renewable energy on the ground –** ensuring that the right market and policy climate exists for more renewable energy projects to be built in the South West.

This action plan aims to remove the technical barriers that prevent more renewable power projects being set up in the region; to support the wider use of renewable heat; to increase the availability of finance for renewable energy; and to encourage a more transparent and consistent approach to planning decisions.

**Developing skills and awareness –** changing attitudes towards renewable energy in order to mainstream its development in the South West.

This action plan aims to increase awareness of the need and potential for renewable energy; increase skills available to the industry; promote debate about renewable energy; and increase understanding of renewable energy amongst decision makers.

**Building the South West's renewable energy industry** – promoting the growth of renewable energy businesses to position the South West at the heart of the emerging global market.

This action plan will promote and increase the size of the South West renewable energy industry and establish a track record for the region.

## SCOPE OF THE STRATEGY

Tackling climate change requires a three-pronged approach addressing energy efficiency, renewable energy and transport. This strategy focuses solely on renewable energy development, but there is a commitment to ensure that it complements any local, regional and national plans to reduce energy demand and to restructure transport systems.

The regional strategy focuses primarily on renewable electricity, in line with national renewable energy policy. However, the potential for renewable energy fuels for both heat and transport in the South West is significant and this strategy begins to identify measures to take these opportunities forward.

## MAKING A START

In order to achieve its aims, the strategy proposes 50 actions, suggests a time scale for their implementation and begins to identify which partners can deliver them. It identifies key 'enabling' actions to start the process of implementation:

The primary action is to establish a regional office for renewable energy. The South West Renewable Energy Group, with initial funding from the South West RDA, has established Regen SW to fulfil this role. It will act as a catalyst for renewable energy in the region, and coordinate the implementation of the strategy.

The following actions are also proposed:

- Further endorsement of the strategy will be sought.
- Each endorsee will be asked to identify which actions it can take a lead role in implementing.
- The strategy will be integrated with other areas of regional and local policy such as environment, energy efficiency, waste, transport, agriculture and land use planning.
- Regen SW will establish ways of monitoring the success of the strategy. The strategy will also be subject to regular revision to take into account any changes to national, regional and local policies on climate change and related areas.

## OWNERSHIP

The strategy already has the support of key regional partners including the South West Regional Development Agency, Government Office for the South West, South West Regional Assembly, the Environment Agency and Sustainability South West who have all committed to taking it forward. It also has the support of the business sector in the form of endorsements from the Association of Electricity Producers and the Renewable Power Association.

The many individual businesses, local authorities, energy providers, and environment groups which have helped shape this strategy through the consultation phase will also be invited to sign up to the plan.

The South West has the opportunity to become a leader in renewable energy. It has the renewable energy resource to be major force in the industry and to make a significant contribution to climate protection. This alone provides no guarantee that it will fulfil its potential. That depends not on the physics of the regions weather and landscape, but on the energy and dedication of its communities, public bodies and businesses to capture that resource. The Regional Renewable Energy Strategy lays out a direction for everyone committed to this endeavour.

# 1 Renewable Energy in the South West

“The environment, in its broadest sense, is the key driver for a sustainable and successful South West economy of the future and is the essential thrust of the Regional Strategy”

SWRDA, Regional Strategy for the South West of England 2000-2010

## 1.1 BACKGROUND

Environmentally related economic activity currently contributes around 100,000 jobs and £1.6 billion to the South West’s regional economy. Projections for future growth indicate a possible further 39,000 jobs and £670 million output over the next few years. The South West of England Regional Development Agency (SWRDA) describes these figures in its Regional Strategy 2000-2010 as ‘conservative’.

Renewable energy is expected to play a key role in the growth of the environmental sector, which has been identified as one of the key growth sectors for the region. The SWRDA’s Regional Strategy 2000-2010 suggests that renewable energy could contribute an additional 12,000 jobs and £260 million output to the South West economy over the next decade.

The government’s Energy White Paper, published in February 2003, supports the proposals of the Royal Commission on Environmental Pollution for cutting carbon dioxide emissions. This amounts to a 60% cut in 1990 levels of carbon pollution for the UK as a whole by 2050. The White Paper also emphasises the importance

“Local authorities, energy suppliers and other agencies should support and encourage the region to meet national targets for a 12.5% reduction in greenhouse gas emissions below 1990 levels by 2008-12 and a 20% reduction (from 1990 levels) in CO<sub>2</sub> emissions by 2010”

Regional Planning Guidance for the South West (RPG10)

of real progress by 2020, highlighting an aspiration to double the 10% 2010 target for renewable electricity by 2020. Regional delivery was also a theme of the White Paper, highlighting the importance of regional targets (on renewables and energy efficiency) and the need to develop an action plan showing how regional bodies and local authorities intend to deliver objectives on energy.

Renewable energy has the benefit of zero net carbon dioxide emissions, and can play an important role in enabling the South West to meet its share of national greenhouse gas targets. The South West’s regional planning guidance, RPG10, explicitly refers to the need for local authorities to support national greenhouse gas reduction targets, as well as a regional renewable electricity generation target of 11-15% by 2010. Action will be needed early to ensure that more challenging targets for combating climate change can be met in the long term.

Annex 2 provides a more detailed analysis of the links between this strategy and policy and practice at an international, national and regional level.

Renewable energy can deliver substantial economic, social and environmental benefits at the local and regional level, by:

- Creating jobs, through the manufacture, installation, operation and maintenance of renewable energy, as well as in the delivery of related services
- Providing a new impetus for rural diversification and regeneration
- Enabling the region to reduce its greenhouse gas emissions and be more self-reliant in sustainable sources of energy generation

In these and other ways it can play a significant and valuable role in the South West’s drive for sustainable development, as outlined in the Regional Sustainable Development Framework, prepared by Sustainability South West and endorsed by the Regional Assembly.

## 1.2 RENEWABLE ENERGY POTENTIAL IN THE SOUTH WEST

Current renewable power generation is dominated by onshore wind, but there are also several small hydro sites and a growing number of other types of renewable energy plant including biomass, waste-to-energy, ground sourced heat pumps, solar electric (photovoltaics) and solar water heating systems. The potential for the further development of renewable energy over the next decade was assessed by the study 'Renewable Energy Assessment and Targets for the South West', commissioned by the Government Office of the South West (GOSW). Its recommendation of a regional renewable electricity generation target of 11%-15% by 2010 has subsequently formed the basis of the renewable electricity target in RPG10.

The reason for the percentage range given in the target is the uncertainty over the total electricity generation capacity likely to be operational by 2010. However, the aim of the target is to establish 545 MW of new renewable electricity generating capacity for the region (see Table 1). This table was developed as part of the regional renewable energy assessment and is referenced here to provide an indicative feel of the nature of the task facing the region. The technology mix is likely to be revised as more detailed work is done on renewable energy at a sub regional level within the South West.

Table 1: Regional renewable energy target: Breakdown by technology

Source: 'Renewable Energy Assessment and Targets for the South West', February 2001, Study commissioned by GOSW, Final Report Volume 1, page 7.

RENEWABLE ENERGY TECHNOLOGY		REGIONAL TARGET: ASSESSMENT OF NEW RESOURCE POTENTIAL	
		NO OF SCHEMES	CAPACITY (MW)
Offshore wind	(50MW, 20-30 turbines)	1	50
Onshore wind	Medium scale wind farms (25MW, 10-20 turbines)	6	150
	Small wind clusters (6MW, 4-10 turbines)	13	78
	Single large turbines (1.5MW)	15	22.5
	Single small turbines (0.03 MW)	50	2.5
Biomass: combustion of energy crops and/ or agricultural and forestry wastes	Large CHP or electricity (20+ MW, wood, straw and chicken litter)	5	105
	Medium CHP (5MW, wood)	7	35
Biomass: anaerobic digestion	Fuelled by farm biogas (0.5MW)	5	2.5
	Fuelled by sewage gas (0.5MW)	2	1
Municipal or industrial wastes	CHP or electricity (10MW)	2	20
Green waste	CHP or electricity (1-2MW)	6	7.5
Landfill Gas	CHP or electricity (1-2MW)	8	11.2
Small hydro power	(0.1MW)	30	3
Solar photovoltaics (PV)	Domestic & commercial schemes	2,929	12.25
Tidal current	(7.5MW)	3	15.3
Tidal barrage		1	28
Shoreline wave		1	0.5
<b>TOTAL</b>		<b>149 + PV</b>	<b>545</b>

Current renewable energy capacity stands at just 52 MW (or 1.3% of the South West's current generating capacity). Thus achieving the target outlined in RPG10 will require the co-ordinated, focused and sustained commitment and support of regional and local government, local businesses, the renewable energy industry and the wider community. In order to achieve this level of support, renewable energy development will need to take account of, and be sympathetic to, the significant natural environmental assets particular to the South West. However, the benefits to the region of meeting this target are likely to be substantial, as outlined above.

This strategy outlines the steps needed to take up this challenge and ultimately realise the potential of renewable energy to contribute towards sustainable development throughout the South West.

### 1.3 WORKING WITH COUNTRYSIDE CHARACTER IN THE SOUTH WEST

The South West is an area of outstanding landscape, biodiversity and cultural and historical heritage. The forces that have created the beautiful scenery in the South West are the same forces that provide the South West with its abundance of renewable energy resources.

The Countryside Agency has published a detailed analysis throughout England of 159 different countryside character areas drawing on datasets that cover, altitude, landform, ecological characteristics, land capability, surface geology, farm types, settlement patterns, woodland cover, field density and pattern, visible archaeology, industrial history, designed parkland. Within the South West there

are 41 distinct character areas, published in Countryside Character, Volume 8: South West, Countryside Agency 1999.

These character areas exhibit varying degrees of sensitivity to different forms of renewable energy technology development. Far greater understanding of the relationship between countryside character and renewable energy development is required. In order to successfully develop the South West's abundant renewable energy resources it will be vital that development works with the South West's unique countryside character rather than against it.

### 1.4 STRUCTURE OF THIS STRATEGY DOCUMENT

The structure for the rest of the strategy document is as follows:

Section 2 – provides the background to the strategy and clearly sets out issues relating to its scope and ownership. Annex 2 provides a more detailed review of the range of policy links at international, national and regional level.

Section 3 – outlines the direction of the strategy by defining the strategy's overall vision, aims and objectives.

Section 4 – summarises the range of target audiences and their potential role in delivering the strategy. Annex 3 provides a fuller analysis of the range of target audiences.

Section 5 – highlights the key enabling actions that will need to be carried out to get the strategy underway.

Section 6 – examines the issues relevant to achieving deployment of renewable energy capacity on the ground.

The section finishes with a comprehensive action plan for this area of activity.

Section 7 – examines the issues relevant to developing skills and awareness in renewable energy. The section finishes with a comprehensive action plan for this area of activity.

Section 8 – examines the issues relevant to building a strong and dynamic South West renewable energy industry. The section finishes with a comprehensive action plan for this area of activity.

Section 9 – provides a summary of the actions within the three action plans ordered by when they have to be started. The Timeline also highlights actions as, high, medium or low priority.

The action plans in sections 4, 5 and 6, have been developed to deliver the aims and objectives for the strategy outlined within Section 3. Each set of actions have also been matched against the opportunities and barriers outlined within Sections 4, 5 and 6.

# 2

## A Renewable Energy Strategy for the South West

### 2.1 BACKGROUND

This strategy has been developed following the completion in April 2001 of the study “Renewable Energy Assessment and Targets for the South West” commissioned by GOSW. One of the recommendations of this study was:

**“The Government Office, in liaison with SWRDA, should consider the feasibility of establishing a renewable energy strategy for the South West region.”**

The study highlighted that a regional renewable energy strategy could realise wide-ranging benefits by:

- Providing a substantiation of the renewable energy target (11-15% of electrical generation in the South West to be from renewable energy sources by 2010)
- Promoting the diverse and practical benefits of renewable energy utilisation in the region
- Encouraging ‘flagship’ projects and regional exemplars
- Defining a coherent strategy for the development of the region’s indigenous renewable energy industry and skills base and provide business support

- Identifying the specific means by which renewables will be expected to support established economic, community and environmental initiatives, such as those in Objective 1 and 2 and the transitional areas, rural development areas and Community Forests
- Assisting the RDA to forge stronger links with the region’s farming community
- Promoting the linkages between the renewable energy industry and the universities and other research centres in the region.

The study noted that sub-regional renewable energy agencies could play an important part in the implementation of the strategy. It also recommended the development of sub-regional targets for renewable energy.

The South West Renewable Energy Group first developed a strategic framework in response to the recommendations of the renewable energy assessment. This framework then went out to consultation during 2002. The feedback from this consultation has been incorporated into a revised document which has now become this renewable energy strategy for the South West. Outcomes from a full sustainability appraisal of this strategy have also been incorporated into the final document.

### 2.2 REGEN SW

Since the development of the first strategic framework, the South West Renewable Energy Group, through its executive group, has established Regen SW with funding from the SWRDA, as the regional renewable energy agency for the South West. The full network that was part of the Renewable Energy Group has been invited to become members of Regen SW. The establishment of Regen SW represents one of the key enabling actions outlined within the original strategic framework. Regen SW will coordinate and monitor the delivery of this strategy.

## 2.3 OWNERSHIP

The development of this strategy has been initiated by the South West Renewable Energy Group and subsequently by Regen SW. The strategy will require the support of regional partners such as SWRDA, GOSW and the Regional Assembly, in order to take it forward.

However, in practice the successful implementation of the strategy will require a partnership approach involving a range of regional, local and national organisations including local authorities, energy suppliers and distribution companies, the renewable energy industry, businesses, trade associations, community and environment groups throughout the South West. Therefore it will be important that the necessary support can be gained from these organisations. To date this strategy has been endorsed by a range of regional organisations as outlined within Annex 4. Other companies and organisations will be invited to endorse this document in the coming months and will appear in updated versions of the strategy.

Endorsement of the strategy will imply support for its vision, the broad strategy laid out for achieving it, and agreement with any action points for which an organisation or sector is identified. It does not imply support for all of the action points in the plan, since the breadth of areas covered by the plan make that unlikely for many stakeholders.

## 2.4 SCOPE OF THIS STRATEGY

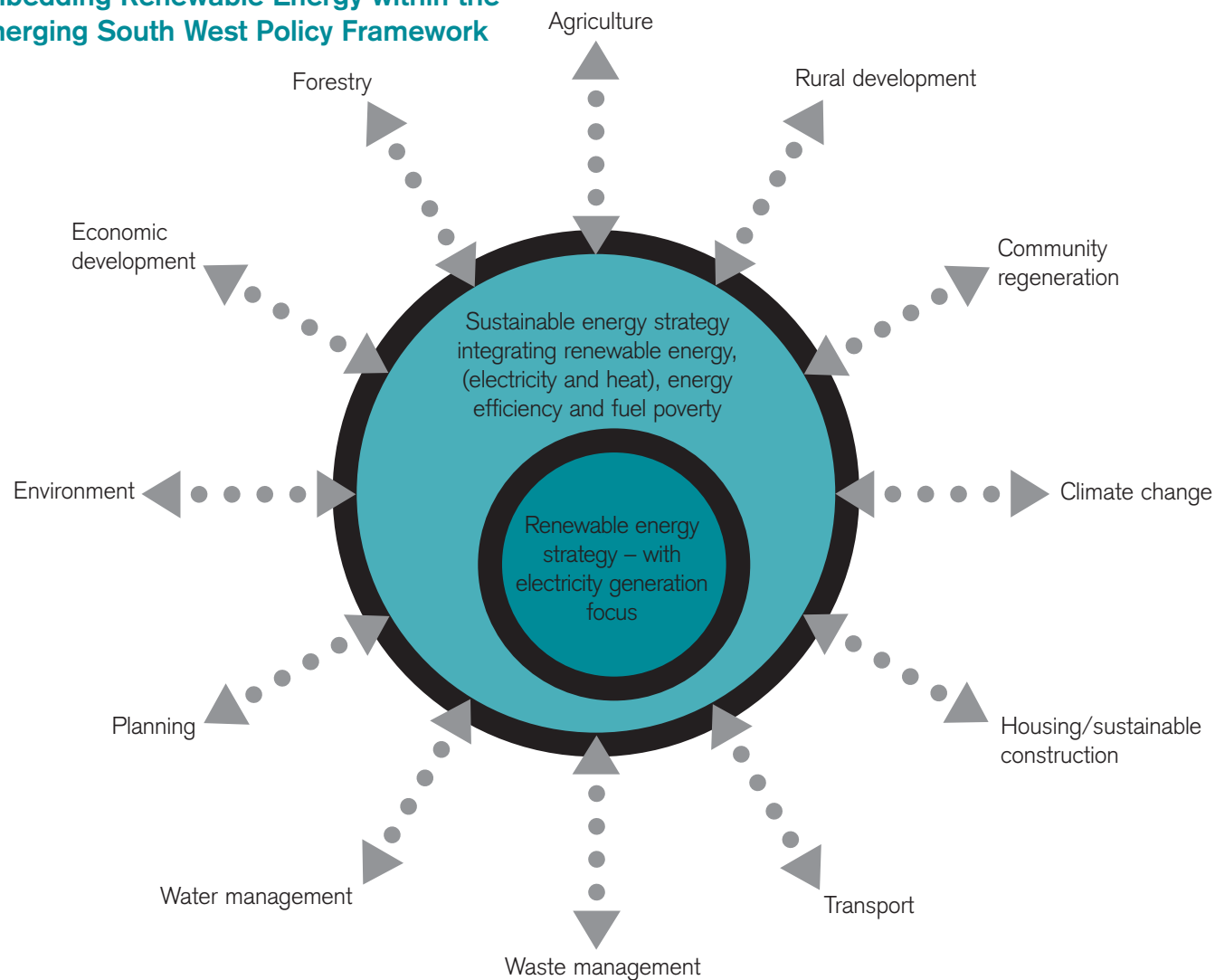
It is widely acknowledged that tackling climate change will require a three-pronged approach addressing the three key areas of energy efficiency, renewable energy and transport. This strategy addresses only renewable energy development. The justification for this is that the issues related to the development of renewable energy generation are unique and are considered sufficiently distinct from those related to curbing energy demand and restructuring transport systems to merit a separate and detailed analysis. However, the authors of the document recognise the need for any renewable energy strategy to be fully integrated with plans at the regional, local and national level to reduce energy demand and address transport use as they emerge.

This framework focuses mainly on renewable electricity generation, and to some extent the production of renewable fuel-based heat. This follows the lead of the renewable energy assessment, which was heavily focused on electricity generation, in line with the Government's national strategy for renewable energy. However, the potential for renewable energy fuels for both heat and transport in the region is significant. The regional renewable energy office will include the provision of renewable energy fuels for heat and transport within its remit.

The development of a comprehensive sustainable energy strategy that integrates renewable electricity and heat with energy efficiency and fuel poverty must be a key target for both the region and for sub regions within the South West. The references to heat production from renewables (actions 108,109 and 112) and energy efficiency (action 203) within this strategy are primarily in the context of how they support the development of renewable electricity projects. For example, maximising the economic potential from biomass through utilisation of waste heat or increasing awareness of the link between supply and demand with energy efficiency. However in so doing the strategy provides links into future strategic development in these two areas at a regional level.

The diagram below outlines some of the range of potential policy links that would be beneficial to clarify and build on. The shaded inner circle represents this strategy. The diagram highlights the importance of at an early stage clearly establishing the links between this strategy and the wider sustainable energy agenda. Some of the links are to existing policies or strategies, others such as sustainable energy are still to be developed.

### Embedding Renewable Energy within the Emerging South West Policy Framework



# 3 Where are we going?

This strategy proposes a vision for renewable energy in the South West, along with a number of specific aims and objectives.

## 3.1 VISION

**“The South West will maximise the social, environmental and economic benefits of renewable energy through the integration of renewable energy into mainstream policy and practice at all levels within the region.”**

## 3.2 STRATEGIC AIMS

There are three core strands that weave together to form the overarching aims for the strategy. These include:

**Deploying Renewable Energy on the Ground** – ensuring the right market and policy climate exists to enable the renewable electricity generation target of 11-15% by 2010 to be achieved in a way that maximises potential benefits and minimises negative impacts.

**Developing Skills and Awareness** – delivering the step-change that is needed in understanding of renewable energy in order to mainstream its development in South West policy and practice.

**Building the South West Renewable Energy Industry** – promoting the development and growth of renewable energy businesses to position the South West at the heart of the emerging global market on renewable energy.

## 3.3 OBJECTIVES

These strands can be in turn broken down into a number of objectives.

### DEPLOYING RENEWABLE ENERGY ON THE GROUND

- To remove the barriers to physical deployment of renewable energy such that a target of 11-15% electricity generation can be achieved or exceeded by 2010 in a manner that is in line with the particular landscape needs of the South West
- To accelerate the development of renewable heat generation in the South West
- To support the development of the market for renewable energy through targeted financial support
- To encourage a more consistent and transparent approach to the planning process for renewable energy.

### DEVELOPING SKILLS AND AWARENESS

- To develop awareness of the need and potential for renewable energy throughout the South West
- To build the capacity of the renewable energy industry to deliver consistent messages and services appropriate to the needs of the South West and beyond
- To promote debate within the wider community about the pros and cons of renewable energy development and encourage informed opinion and decision making
- To build capacity within the wider community to respond to the challenge of developing renewable energy.

### BUILDING THE SOUTH WEST RENEWABLE ENERGY INDUSTRY

- To promote indigenous renewable energy businesses and attract inward investment by others (national and global)
- To establish a ‘second to none’ track record for the region in renewable energy, by ensuring that the South West completes as many exemplar projects involving as many technologies as possible by 2010
- To grow the number of renewable energy companies in the region and expand the turnover and jobs in the sector.

Without a focus in each of these three areas, the South West will fail to realise the potential of renewable energy outlined in the SWRDA’s Regional Strategy 2000-2010. Building the renewable energy industry in the South West will require a strong physical presence of renewable energy on the ground. This in turn will require a step-change in understanding and support for renewable energy throughout the region.

A strong and healthy renewable energy industry that brings economic, as well as social and environmental, benefit to the region will greatly contribute to people’s understanding of renewable energy, and help to develop the necessary skills to build the industry further.

All three elements of the framework are therefore interlinked and require each other in order to succeed.

### 3.4 KEY ENABLING ACTIONS

In order for the detailed actions to be achieved, and the wider vision realised, the framework proposes a number of key enabling actions.

The primary key enabling action is:

**The establishment of a regional office for renewable energy.** This will be vital to ensure a co-ordinated and integrated approach to renewable energy development across the region. Since the first draft of this document, following a full feasibility study, Regen SW has been established to fulfil this role, with initial core funding from the SWRDA.

In addition, the following key enabling actions are also proposed:

**Securing endorsement of this strategy from key individuals and organisations throughout the region.** Endorsement should be sought from regionally-based organisations, local authorities, energy companies, businesses, trade associations, the renewable energy industry, and community and environment groups throughout the South West. This action will be led by Regen SW.

**Securing ownership of the actions outlined within the action plan.** Whilst the action plan provides suggestions for who should be involved in the delivery of the actions they are not comprehensive. Through the process of endorsement it is likely that the names against these actions will be firmed up. In addition it will be vital that a lead organisation is identified who will take responsibility for the delivery of the each action. This action will be undertaken by Regen SW.

Integration with other related policy areas. While this framework has focused on the needs of renewable electricity, a priority task should be to ensure integration with other related areas of regional and local policy including environment, renewable heat, energy efficiency, waste, transport, agriculture and land use planning. This action will be led by Regional Government with support from Regen SW.

The establishment of mechanisms to monitor success. Monitoring success of any strategy will be vital and this should be undertaken by the regional office once established. This action will be led by Regen SW.

Regular review and revision of the renewable energy strategy. It will be vital that any strategy that evolves out of this framework is subject to regular review and revision to take account of changes to national, regional and local policies on climate change and related policy areas. This action will be led by Regen SW.

These actions are outlined in more detail in Table 2 below.

In addition to these enabling actions and the establishment of the regional renewable energy office, progress has already been made on a number of the actions within the full action plan itself. These include actions relating to regional and sub regional resource assessments, sub regional targets and strategic environmental assessment.

Table 2: Key Enabling Actions

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
001 Regen SW	<ul style="list-style-type: none"> <li>Establish a regional renewable energy office in the SW</li> </ul>	<ul style="list-style-type: none"> <li>Action Completed. Regen SW established, contact Matthew Spencer</li> </ul>	RDA GOSW RA	6 months	Establishment of mechanism.	High
002 Securing buy-in to strategy	<ul style="list-style-type: none"> <li>Secure sufficient buy-in to this strategy from key individuals and organisations to enable the development of a renewable energy strategy for the region</li> </ul>	<ul style="list-style-type: none"> <li>This should include the RDA, GOSW, the Regional Assembly, Chief Executives and Leaders from local councils, and those responsible for local and structure plans</li> <li>This should include a mechanism for launching the strategy</li> </ul>	Regen SW RDA GOSW RA	6 months	Attendance at workshops. Level of support for strategy. Degree of positive press coverage.	High
003 Policy integration	<ul style="list-style-type: none"> <li>Ensure integration with other key related areas of policy and strategy</li> </ul>	<ul style="list-style-type: none"> <li>A priority task should be to ensure the strategy's integration with other related areas of regional and local policy and strategy including climate change, energy efficiency, environment, sustainable construction, waste, transport and agriculture</li> </ul>	Regen SW RDA GOSW RA Sustainability South West SW Climate Change Impacts Partnership	12 months	Degree of cross reference to other strategies.	High
004 Monitoring set up and reporting	<ul style="list-style-type: none"> <li>Develop and implement mechanisms to measure the success of strategy's implementation</li> </ul>	<ul style="list-style-type: none"> <li>Develop mechanisms as soon as possible.</li> <li>Establish a baseline "where we are now"</li> <li>Define a list of key targets to measure against</li> <li>Feedback to interested &amp; involved groups</li> <li>Report widely to rest of SW</li> </ul>	Regen SW RDA GOSW RA SW Regional Observatory	9 months	Mechanisms in place within 9 months first report within 18 months.	High
005 Strategy review	<ul style="list-style-type: none"> <li>Ensure the renewable energy strategy is regularly reviewed and updated</li> </ul>	Re-evaluate the strategy and action plan on a regular basis to take account of changes in climate change and related areas of policy at a national, regional and local level	Regen SW RDA GOSW RA	Every 2 years	Strategy updated every two years. Interim target set.	High

# 4

## Deploying Renewable Energy on the Ground

### 4.1 BACKGROUND

The South West renewable energy assessment recommended a target of 11-15% renewable electricity generation in the South West region by 2010.

The target was based on a region-wide assessment of the renewable energy resource likely to be available by the end of the decade. It corresponds to a total of 597MW of installed capacity across the region, of which 52MW is already operational. A review of all the UK's regional renewable energy assessments undertaken recently by OXERA concluded that this was both a credible and achievable target for the South West.

The target is quoted in terms of a percentage range because of the uncertainty surrounding the total level of electricity generation likely to be in operation by 2010. If regional electricity generation is at the lower end of the expected range, then 597 MW of installed renewable electricity capacity will correspond to 15% of the total installed capacity. Given the ongoing structural changes in the electricity industry, and the resulting uncertainty over future conventional generation capacity in the region, the South West Renewable Energy Group recommends the adoption of the higher percentage based target (i.e. 15% by 2010), to ensure that a minimum level of 545 MW new renewable electricity generation is achieved by 2010.

An alternative approach to target setting is to express the regional target in terms of a percentage of electrical consumption (not generation). The national renewable energy target, of 10% electricity supplies to be sourced from renewable energy by 2010, is a consumption-based target. The advantage of a consumption based target is that it relates more directly to actual energy consumed within a given region. At the time of the renewable energy assessment, there was not sufficient data available on electricity consumption in the SW to enable a target to be expressed in this way. However, the study recommended that once this data became available, the basis for expressing the regional target should be reviewed. The Renewable Energy Group endorses that recommendation.

However the target is described, developing and commissioning 545 MW of new renewable electricity capacity in the South West by 2010 will be a challenging task. Assuming that the average renewable energy project takes 18 months to construct after consent has been issued, the planning system must deliver 545MW of consents by the middle of 2009 if the target is to be met. Starting from April 2002 this gives around 86 months, with an implied consenting rate of 6.3 MW per month. Contrasting this with the national rate for new renewable energy consents, which has fallen to below 100MW per year (8.3 MW/month) in recent years, starkly highlights the need for action.

For this reason it may be worth establishing an interim target (for instance, for 2005) to help focus action early on.

The reasons for the slow rate of renewable energy growth in recent years are many, but include a number of technical, policy and market barriers to renewable energy development, some of which act at the national level but some which also act at the regional and local level. Issues which need to be resolved in order for renewable energy to flourish in the South West break down broadly into the following four groups:

- technical issues (such as insufficient technology development and restricted access to electricity networks)
- financial issues (such as lack of access to affordable capital for renewable energy projects)
- planning issues (many renewable energy schemes have had difficulty in obtaining planning permission)
- institutional/policy issues (such as the negative impacts of the New Electricity Trading Arrangements on small scale renewable energy generators).

## 4.2 BARRIERS TO DEVELOPMENT

The following analysis presents some of the issues which will need to be resolved at the regional, national and local level to enable renewable energy to meet its potential in the South West. They are grouped in terms of the four groups outlined above. Each issue is referenced against the relevant action from the Action Plan in Table 3 below.

### TECHNICAL ISSUES

**Technological maturity** – Some technologies are less mature than others, and are thus currently more expensive to install. This includes technologies such as biomass combined heat and power (CHP), solar PV and wave power. [101, 102]

**Electrical network upgrade** – Some areas of the electricity transmission and distribution network are likely to require capital investment in network upgrades in order to be capable of handling greater embedded power generation from distributed sources. [103-05]

**Electrical connection** – Connecting to the local electrical distribution system can also be time consuming and costly for small scale renewable energy generators. [103-105]

**Net metering** – Domestic electricity meters do not currently enable net metering, i.e. they do not record the amount of electricity exported into the local distribution network. Thus expensive upgrades are required if the householder wishes to try and sell any of the output from, for example, their PV system. Lower cost, more sophisticated electricity meters need to be developed. [106]

**Heating networks** – Absence of community heating networks to which renewable energy heat sources can be connected is a particular barrier to the use of biomass as a fuel. [110]

**Inappropriate load profiles** – Many individual energy users, acting on their own, lack the appropriate energy loads to make combined heat and power (CHP) effective. Collective action, via an energy service company, could remove this barrier by aggregating demand from a number of users. [107, 109-112, 114-117]

**Energy storage** – Technologies for electrical storage, if less expensive and more widely available, could help improve the viability of intermittent, small scale renewable energy generators by smoothing supply and making output more predictable. [110]

### FINANCIAL ISSUES

**Access to affordable capital** – The high capital cost, low operational cost, nature of many renewable energy technologies means they require significant up-front capital investment. Securing sufficient finance can however be difficult, particularly for smaller sized schemes. [111]

**Markets for biomass fuel** – are relatively undeveloped. Without sufficient biomass fuel, new biomass power plants cannot be developed. There is a need to break this deadlock and kick-start the development of biomass fuel markets. [112, 213]

### PLANNING ISSUES

**Planning guidance** – lack of guidance and evaluation criteria to help planners assess schemes on the basis of both global, national and local impacts means that local impacts are often given priority. [114, 211]

**Renewable energy targets** – absence of targets in local, structure and unitary development plans mean there is no consequence for local authorities when renewable energy schemes are rejected. [116, 202]

**New developments** – there is generally no requirement for new developments to consider the use of renewable energy generation, or to set targets for integrating it into building design. [118, 214]

**Community support** – there is often a perceived lack of local support for renewable energy developments. [207-215]

### INSTITUTIONAL/POLICY ISSUES

**NETA** – The New Electricity Trading Arrangements penalise variable output. This has a serious detrimental effect on many forms of renewable electricity generation such as wind power. [113]

## 4.3 OPPORTUNITIES FOR DEVELOPMENT

The following issues present opportunities for the development of renewable energy in the South West. Each issue is referenced against the relevant action from the Action Plan in Table 3 below.

### TECHNICAL ISSUES

**Mature technologies** – Many technologies are relatively mature and available ‘off the shelf’, for example solar hot water systems, wind turbines, biomass heating, and small scale hydro-electric. There is an opportunity to use these to meet the 2010 target. Equally there is an opportunity to develop less mature technologies to meet subsequent targets beyond 2010. [101]

**Flexibility and security** – There are many different technologies available meaning that renewable energy can be exploited in a huge range of locations and types of application, enhancing overall security of energy supply. [102, 115, 116]

**Load profile** – Linking several users together via a heating network and private wires arrangement to create the appropriate energy demand profile can make CHP cost effective. New legislation is being introduced that will enable local authorities to establish Energy Service Companies (ESCOs) and charge for the provision of energy services. [107, 117]

**Mass Production** – Because of the relatively small market for many renewable energy technologies, the real benefits of mass production have yet to be achieved. As the market for these technologies continues to grow, increased production volumes and competition between manufacturers will continue the downward trend in capital costs and advances in technological sophistication and reliability. [101, 310]

### FINANCIAL ISSUES

**Financial support** – A number of new support mechanisms could have a decisive impact on the commercial viability of many renewable energy projects. These include the Renewables Obligation, the National Lottery New Opportunities Fund, the Government’s solar (PV) demonstration programmes, and a range of national capital grant programmes for other technologies including offshore wind and biomass. At a regional level the SWRDA are considering the potential for match funding near-market renewable energy development within the South West. [111]

**ESCOs** – The establishment of Energy Service Companies can facilitate the development of heating networks and CHP. They can also assist customers in the purchase of solar systems through access to cheaper finance and bulk purchase discounts. ESCOs offer an integrated approach to energy service provision and offer the prospect of using the more cost effective technologies such as wind power to cross-subsidise more expensive options such as biomass. [107, 117]

### Establish revolving renewable energy fund –

Kirklees Metropolitan Council and Woking Borough Council have both initiated revolving funds for renewable energy which are proving very successful in bringing projects forward. These provide seed-funding for schemes and then reinvest income into the development of further projects. There is an opportunity for local authorities in the South West to replicate this approach. [111]

### PLANNING ISSUES

#### Community involvement in renewable energy –

There is an increasing trend towards a more community based approach to renewable energy development. This presents an opportunity to both engage local people in scheme planning and to ensure that more benefits of the project are retained within the locality. The Countryside Agency’s Community Renewables Initiative will establish pilot support centres in Devon & Cornwall and Gloucestershire & Wiltshire which will provide advice and resources to community groups seeking to develop renewable energy schemes. [215]

#### Opportunity to mobilise public support –

Surveys show that while many people have concerns about renewable energy schemes before they are developed, once they are commissioned local support can increase, often significantly. There is an opportunity to mobilise this support earlier in scheme development to counter the vocal minority who often dominate decisions at planning stage. A more community based approach to renewable energy development will assist this. [207-215]

**Local energy planning** – A number of councils (including Bristol City Council and South Somerset District Council) have initiated local energy planning exercises, whereby the opportunities for sustainable energy are strategically reviewed across a locality and potential projects identified. This process has also been developed on a sub-regional basis by the Renewable Energy Office of Cornwall (REOC). [107, 114, 116, 117]

**Sub-regional targets, guidance and locational criteria** – Work is currently underway, led by GOSW and the SW Regional Assembly to develop sub-regional targets for renewable energy with local authorities, and to provide additional guidance and locational criteria for local authorities to assist the achievement of the regional target. [114-6, 202]

**New developments** – New developments could be required to assess the potential for renewable energy integration. New buildings could also be required to orientate new developments to optimise solar and energy efficiency gains. This could link to a standard, consistent list of sustainable development objectives that developers must consider before they can obtain planning permission. [118, 214]

**Re-development of brown field sites** – opportunities to integrate renewable energy technologies into regeneration projects should be strongly encouraged. [119, 214]

## INSTITUTIONAL/POLICY ISSUES

**Security of Supply** – Over the coming decades the UK's supplies of fossil fuels, particularly gas and oil, will be depleted. This will result in an increasing reliance on imported fuels, often from politically unstable parts of the world. Indigenous renewable sources of energy therefore present a lower risk alternative.

**Utilities Act 2000** – The Utilities Act 2000 offers exemptions from the need to hold generation, supply and distribution licences for on-site generators using 'private wire' systems. This will make small scale, distributed generation more cost-effective and will reduce the impacts of NETA on distributed output. [107, 113]

**Net Metering** – offsetting power generated against power consumed for individual households/consumers would have a major effect on the uptake of embedded small scale renewable energy generators such as solar PV, micro hydro-electric and micro CHP systems. This will require a major change in the attitude of the electrical utilities and will need new legislation to force the change. [106]

Table 3: Deploying Renewable Energy on the Ground: Action Plan  
 Actions are grouped according to the four objectives outlined in Section 3.3.

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
<b>Removing the barriers to physical development of renewable energy</b>						
101 Technological maturity	<ul style="list-style-type: none"> <li>Accelerate development of renewable energy technologies</li> </ul>	<ul style="list-style-type: none"> <li>Increase availability of regional R&amp;D grant aid, ensuring focus on Best Available Technology</li> <li>Establish regional exemplar projects, demonstrating the use of novel technologies (including tidal stream and barrages, wave, offshore wind and biomass), applications and delivery mechanisms</li> </ul>	RDA GOSW Regen SW RE industry	1-5 years	Level of regional R&D support. Number of exemplar projects.	High
102 Individual targets	<ul style="list-style-type: none"> <li>Encourage take-up of renewable energy technologies</li> </ul>	<ul style="list-style-type: none"> <li>Individual organisations to establish their own targets for renewable energy generation where appropriate, to reflect the national and regional ones</li> </ul>	Regen SW RDA LAs Businesses	1-3 years	Number of organisations publishing targets.	Low
103 Mapping electricity networks	<ul style="list-style-type: none"> <li>Ensure renewable energy is developed first in areas where the electricity network can best accommodate it</li> </ul>	<ul style="list-style-type: none"> <li>Map the electrical network for weak and strong points</li> <li>Ensure this information is freely available to renewable energy developers</li> </ul>	DNO Ofgem/DTI Regen SW	6-18 months	Information freely available to RE developers.	High
104 Strengthening distribution system	<ul style="list-style-type: none"> <li>Strengthen the electricity network to accommodate more renewable energy and embedded generation</li> </ul>	<ul style="list-style-type: none"> <li>Increase the DNO's regulatory responsibility for network upgrade</li> <li>Investigate opportunities for offshore electrical grid network in the SW – including feeding into the Government's feasibility study for an offshore grid – whilst ensuring minimum environmental impact</li> </ul>	Ofgem/DTI GOSW DNO Regen SW	1-3 years	Level of investment in regional network upgrade.	Medium: Important not urgent

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
105 Access to electricity distribution networks	<ul style="list-style-type: none"> <li>Ensure fair access to the distribution network for embedded renewable energy generators</li> </ul>	<ul style="list-style-type: none"> <li>Work with DNO to facilitate fair access for renewable generators</li> <li>Promote the importance of placing the cost of network upgrades associated with the installation of new embedded generation on the operator rather than the generator</li> <li>Increase network operators' familiarity with renewable generation where appropriate</li> </ul>	DNO Ofgem/DTI RE industry Regen SW GOSW RDA	18 months-3 years	Average cost per connection and average time spent negotiating network access.	Medium: Important not urgent
106 Net metering	<ul style="list-style-type: none"> <li>Encourage electricity suppliers to offer net metering tariffs and install smart, net meters</li> </ul>	<ul style="list-style-type: none"> <li>Work with electricity suppliers to offer innovative metering packages such as TXU's Solarnet tariff</li> <li>Lobby to change national regulations</li> </ul>	DNO Ofgem/DTI Regen SW	18 months-3 years	Number of net metering tariffs available. Number of net meters installed.	Low
107 Load profiles	<ul style="list-style-type: none"> <li>Aggregate demand for heat and power from a number of local sources, to create load profiles more suitable for CHP</li> </ul>	<ul style="list-style-type: none"> <li>Encourage local energy planning, where local demand is mapped and analysed to enable potential load matching</li> <li>Facilitate the development of ESCOs which can provide energy services (heat and power) to several customers from CHP</li> </ul>	GOSW LAs RE industry Businesses Regen SW	1-3 years	Number of dwellings/ organisations serviced by ESCOs.	Medium: Important not urgent
108 Energy storage	<ul style="list-style-type: none"> <li>Accelerate development and take-up of energy storage technologies, e.g. fuel cells</li> </ul>	<ul style="list-style-type: none"> <li>Increase availability of R&amp;D grant aid at a regional level</li> <li>Encourage take-up of energy storage technologies across all sectors</li> </ul>	RDA GOSW Regen SW Businesses LAs RE industry	2-5 years	Number of energy storage facilities in the region.	Low

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
<b>Accelerating the development of renewable heat generation in the South West</b>						
109 Renewable heat	<ul style="list-style-type: none"> <li>Ensure that renewable heat receives sufficient regional support</li> </ul>	<ul style="list-style-type: none"> <li>Establish separate regional target for renewable heat generation, to sit alongside that for renewable electricity</li> </ul>	RDA, GOSW RA, Regen SW Foresters	6 months- 2 years	Target published.	High
110 Heating networks	<ul style="list-style-type: none"> <li>Encourage the development of more district heating networks</li> </ul>	<ul style="list-style-type: none"> <li>Include reference to the need for local heating networks in RPG, structure and local plans</li> <li>Require planning applications to have assessed the opportunities for district heating networks</li> <li>Develop planning guidance relevant to district heating</li> </ul>	RDA GOSW RA LAs	1-3 years	Number of district heating networks in the region.	Medium: Important not urgent
<b>Supporting the development of the market for renewable energy</b>						
111 Access to capital	<ul style="list-style-type: none"> <li>Facilitate access to capital for small and medium sized renewable energy projects</li> </ul>	<ul style="list-style-type: none"> <li>Assess availability of existing capital funds and increase up take in South West</li> <li>Establish a revolving renewable energy fund, offering pump-priming finance and re-investing profits into new schemes. Access to the fund could be restricted to certain types of schemes, e.g. community based renewable energy or supporting SMEs</li> <li>Use the RDA Venture Capital Fund to support near market technology development, ensuring focus on 'Best Available Technology' and provision of clear criteria to guide allocation</li> <li>Establish purchasing consortia for local authorities</li> <li>Promote changes to fiscal incentives, tax rates and grant schemes where these could support the achievement of renewable energy targets</li> </ul>	RDA GOSW LAs Financiers Regen SW	6-18 months	Level of capital available via fund. Proportion of national grants going to RE projects in the South West.	High

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
112 Stimulate renewable fuel markets	<ul style="list-style-type: none"> <li>Stimulate the development of regional and local markets in wood fuel (biomass)</li> </ul>	<ul style="list-style-type: none"> <li>Establish supply chain delivery vehicles for woodchip and processed wood fuel products</li> </ul>	LAs, RE industry RDA Foresters	1-2 years	Annual regional sales of wood fuel products.	High
113 NETA	<ul style="list-style-type: none"> <li>Alleviate impact of NETA on renewable energy generators</li> </ul>	<ul style="list-style-type: none"> <li>Lobby national government and Ofgem</li> <li>Encourage development of ESCOs to aggregate and match local electrical supply and demand</li> </ul>	Regen SW RE industry LAs	1-3 years	Concessions to RE generators under NETA.	Medium: Important not urgent
<b>Encouraging a more consistent and transparent approach to the planning process for renewable energy</b>						
114 Local and regional planning guidance	<ul style="list-style-type: none"> <li>Ensure that RE is covered positively and in sufficient detail in RPG/RSS, structure and development plans</li> </ul>	<ul style="list-style-type: none"> <li>Incorporate enhanced provisions for coverage of renewable energy at the appropriate level into future revisions of RPG/RSS, structure and development plans, supported by the development of locational guidance criteria</li> <li>Development of interim planning guidance on renewable energy to bridge gap to revision of RPG/RSS</li> </ul>	RA GOSW Statutory consultees Sustainability South West Environment Agency LAs	1-2 years	Use assessment indicators used in GOSW study for positive coverage of RE.	High
115 Assess strategic environmental impact	<ul style="list-style-type: none"> <li>Consider the environmental implications of meeting the renewable energy target</li> </ul>	<ul style="list-style-type: none"> <li>Undertake a Strategic Environmental Assessment for Renewable Energy in the region</li> </ul>	GOSW RA Sustainability South West Environment Agency LAs	1 year	SEA undertaken and guidance produced.	High
116 Sub-regional targets	<ul style="list-style-type: none"> <li>Develop sub regional renewable energy targets and strategies for both heat and electricity</li> </ul>	<ul style="list-style-type: none"> <li>Local authorities need to examine the resources and opportunities within their areas, and set targets in collaboration with other LAs</li> </ul>	GOSW, RA, LAs Environment Agency RE industry, Sub regional energy bodies	2 years	Proportion of LAs having assessed resource, with targets in place.	High

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
117 Local energy planning	<ul style="list-style-type: none"> <li>Promote local energy planning</li> </ul>	<ul style="list-style-type: none"> <li>Encourage LAs to map energy demand profile of existing and new developments, to identify opportunities for energy services. Develop guidance for local authorities to encourage consistency</li> <li>Encourage development plans to identify target areas for district heating and CHP, and specify the types of developments where use of CHP will be expected</li> </ul>	LAs GOSW	6 months-3 years	Number of LAs undertaking local energy planning. Number of dev. plans specifying CHP requirements.	Medium: Important not urgent
118 New development	<ul style="list-style-type: none"> <li>Use the planning system to encourage greater consideration of sustainable energy options</li> </ul>	<ul style="list-style-type: none"> <li>Encourage new developments to assess the potential for renewable energy integration</li> <li>This should link to a standard, consistent list of sustainable development objectives that developers must consider</li> <li>Encourage new developments to be orientated to optimise solar and efficiency gains</li> </ul>	LAs GOSW Regen SW	6 months-3 years	Number of LAs integrating sustainable energy into planning permissions.	High
119 Re-development of brownfield sites	<ul style="list-style-type: none"> <li>Use the opportunities offered by regeneration projects to establish renewable energy projects on brownfield sites</li> </ul>	<ul style="list-style-type: none"> <li>Encourage strategic bodies e.g. RDA to develop policies for regeneration that require renewable energy to be integrated into regeneration projects utilising brownfield sites</li> </ul>	RDA LAs Sustainability South West	6 months-2 years	Number of regeneration projects including renewable energy projects.	High

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
120 Develop planning process through communication with Central Government	<ul style="list-style-type: none"> <li>Developing planning policy could provide a more favourable environment for the incorporation of renewable energy projects at appropriate locations</li> </ul>	<ul style="list-style-type: none"> <li>Encourage strategic bodies and local authorities to respond to consultations where appropriate, to encourage planning policies in favour of renewable energy technology take-up. For example revisions to national planning guidance PPG/PPS 22</li> </ul>	Regen SW GOSW Sustainability South West LAs	1-3 years	Changes to planning policy.	Medium: Important not urgent
121 Renewable energy and landscape character	<ul style="list-style-type: none"> <li>Develop greater understanding of the relationship between renewable energy development and the South West's landscape character and natural environment</li> </ul>	<ul style="list-style-type: none"> <li>Set up a steering group to consider developing understanding on the level of impact of renewable energy development on the natural, landscape, cultural and historical attributes of the South West</li> <li>Develop clear and transparent criteria that will inform planning and the industry on potential impacts of renewable energy developments</li> <li>Carry out an assessment of the impact of, in particular onshore wind and biomass developments, on the existing South West countryside character areas</li> <li>Consider the best methodology for extending this down to a local level using where available local authorities own work on landscape character</li> </ul>	GOSW RA Regen SW Environment Agency environment sector bodies, e.g. Countryside Agency, English Nature	1 year	Clear criteria describing potential impacts produced. Informing locational guidance criteria and used within the planning process to aid decision making.	High

# 5 Developing Skills and Awareness

## 5.1 BACKGROUND

Meeting the current UK and regional targets for renewable energy will require a step change in the way that renewable energy is regarded by the general public and specific interest/professional groups within society. This will only come about through a full and open debate about the constraints, as well as the opportunities, for renewable energy. Without consideration of the problems associated with renewable energy, public opinion will bounce from one revelation to the next without any opportunity for balance.

In order to confront this danger a process of informed decision-making needs to be encouraged within society that allows people to:

- Develop an awareness of the need for renewables
- Understand the opportunities and constraints
- Make informed decisions/opinions about the options
- Develop ownership of the outcomes.

Whilst this goal will not always be reached, it does create a framework for guiding how education and awareness programmes might be developed. This approach will mean that people are given the chance to disagree. However people's support once gained will be more solid. It is consistency in public opinion that the renewable energy industry needs in order for it to develop.

This has implications for the approach to education and awareness programmes. Programmes will need to:

- Be based on consistent and accurate data
- Strive to be objective, address specific concerns, and discuss problems as well as opportunities
- Seek to create positive associations with renewable energy by placing local concerns in the context of wider issues
- Encourage open debate about the options within the media and within the education sector
- Provide quality information and advice within the community
- Develop a level of understanding of renewable energy sufficient to enable people to act positively and appropriately in line with the needs of the SW.

The ultimate goal must be to mainstream renewable energy development within the core priorities of economic, environmental and social policy and practice across the SW. The potential role for renewable energy within any new initiative, development or regeneration scheme should come to be considered as a matter of standard practice. Opportunities for renewable energy development should be promoted within a climate that understands the need for renewable energy and is ready to support appropriate schemes that are in line with the needs of the community.

## 5.2 BARRIERS TO DEVELOPMENT

The following factors have tended to restrict the development of renewable energy in the South West. Each issue is referenced against the relevant action from the Action Plan in Table 4 below.

Generic barriers include:

- A perception that renewable energy is peripheral to key concerns [201, 207-209]
- Divergent views within the environmental lobby on key environmental issues (such as energy from waste) [202, 208]
- A high level of current energy demand which creates the view that renewables will never meet need [203, 207]
- A lack of understanding of how renewable energy relates to wider social/economic issues and policy agendas [201]
- Low energy prices which reduce the motivation to act [207-209, 210]
- Barriers faced by key target audience groups include:

### RENEWABLE ENERGY INDUSTRY

- Unerring support for renewable energy among the renewables industry, which sometimes clouds the understanding of opposition interests [208]
- A lack of integration between energy efficiency and renewable energy plans, which constrains potential for partnership action [203, 204]

- Competition within renewable energy market could cloud provision of accurate and transparent information to consumers [207-209]
- Uncertainty in how green power will be marketed to consumers following the advent of the renewables obligation [207-209]
- Patchy infrastructure within the region for promoting the renewable energy message, unlike the infrastructure for energy efficiency support [204]
- Limited indigenous renewable energy industry (but highly skilled – see opportunities) [205, 301-310]
- Limited vocational training opportunities in renewable energy [206, 305]

#### **POLICY MAKERS**

- Long timescales of policy development cycles, which do not necessarily match the needs of renewable energy [113, 202]
- Renewable energy is perceived as a low priority amongst the general public – except when they have a negative view [207-209]
- A perception among policy makers that renewable energy is principally a technical issue [202]
- Limited awareness of potential for renewable energy at a more local level [115, 116, 117, 202]
- A variety of methodologies used to produce local assessments of renewable energy potential (where these are carried out) [113-5, 118, 202]

#### **OPINION FORMERS/GATEKEEPERS**

- A lack of interest among the media in renewable energy except when negative opinions expressed [207-209]
- Little positive link made to climate change or local issues by media [207-209]
- Pressure to deliver core responsibilities, which prevents the integration of renewable energy (perceived as only a peripheral issue) [210, 211, 212]
- Education sector led by national plans/curricula that mitigate against the regional dimension. Little local information is made available to education sector [212]
- A dip in young peoples interest in environmental issues between 12-16 yrs old [212]
- Little sharing of good practice in renewable energy education in SW [205]
- Limited interest from business sector [210]

#### **DECISION MAKERS**

- Disassociation between benefits of energy use and the problems (“What has it got to do with me? What can I do about it?”) [207-209, 215]
- A perceived lack of local support for renewable energy developments. [207-215]
- A perception that it is the government that should sort it out [207-209]
- A focus on local rather than wider environmental impacts [207-209]
- A lack of awareness of renewable technologies among some planners [113-118, 202]

- A general perception that renewable energy is the more expensive option [308]
- Significant pressures within the farming community, reducing the willingness to take risks [213]
- Conservative attitude towards renewable energy amongst much of construction industry [214]

### **5.3 OPPORTUNITIES FOR DEVELOPMENT**

The following issues present opportunities for raising awareness of renewable energy in the South West. Each issue is referenced against the relevant action from the Action Plan in Table 4 below.

Generic opportunities include:

- The burning fossil fuels is topical, climate change is in the news [206-208]
- The employment & economic opportunities from a buoyant renewable energy industry in the SW are significant [200, 204, 310]
- Renewable energy is controversial, and debate has the potential to engage people [206-208]
- Opportunities in regeneration schemes and new developments to integrate renewable energy into the built environment. [200, 210, 213]
- Pressure for rural diversification [200, 212]
- The impact of climate change levy on businesses and local authorities [209, 210]

Opportunities faced by each target group include:

### RENEWABLE ENERGY INDUSTRY

- The Renewables Obligation could create a market and a positive driver for new renewable energy supply [304, 306, 310]
- There is extensive renewable energy expertise, experience and commitment within SW [204, 302]
- Partnership between renewable energy and energy efficiency interests will enhance both agendas [203]
- Reducing energy demand makes it easier for renewable energy to make a significant contribution [203]
- Renewable energy can be used to engage and enthuse people in wider energy issues [207-209]

### POLICY MAKERS

- The renewable energy assessment provides a focus for policy development [202]
- National and regional targets provide the momentum to generate more locally owned targets [202]
- The inclusion of renewable energy policies within Regional Planning Guidance will lead to greater consideration of the issue within structure and local plans [113, 202]
- The proposals made in the Government's planning green paper are likely to result in a greater degree of local planning and community involvement [215]

- The SW Sustainable Development Framework provides an opportunity to engage local authorities and other actors in proactive policy development [202]
- Good practice in Local Authority policy development is available within SW [202]
- Local Strategic Partnerships and community plans provide a driver to engage communities with renewable energy schemes [117, 215]
- The SW RDA, GOSW and the Regional Assembly are supportive and engaged [202, 204]

### OPINION FORMERS/GATEKEEPERS

- The renewable energy assessment and the resulting target in RPG10 provides a focus for debate [207-209]
- The increasing interest in Education for Sustainable Development, if reflected within the curriculum, will create a space for deeper study of renewable energy [212]
- Renewable energy education can be presented as a cross curricula issue with strong focus on process skills like literacy and numeracy as well as core subjects [212]
- Renewable energy education can be linked to the real world through study of own school/community therefore ideal for both school's education and life long learning [212]
- The SW harbours extensive renewable energy education experience and expertise [212]

- The SW has a strong HE and vocational training sector [205]
- The SW benefits from strong LA officer networks [211]
- There are opportunities to learn from other national and international examples of engaging the support of local people for renewable energy schemes.

### DECISION MAKERS

- Sustainable appraisal techniques offer an opportunity to develop transparent criteria to evaluate renewable energy developments, thereby creating a framework for debate [118, 202]
- The Countryside Agency's Community Renewables Initiative offers an opportunity to encourage communities to come together to develop renewable energy generation projects [215]
- Marketing 'green' energy offers an opportunity for people to demonstrate their interest and commitment [207-209]
- Renewable energy schemes represent a very tangible contribution to sustainable development [201]
- Support for renewable energy technologies increases significantly with practical experience [207-209, 213-215]
- The renewable energy assessment, and the resulting target in RPG10, tapped interest within planning community [202]

Table 4: Developing Skills and Awareness: Action Plan

Actions are grouped according to the four objectives outlined in Section 3.3.

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
<b>Establishing need and potential for renewable energy</b>						
201 Policy drivers for renewable energy	<ul style="list-style-type: none"> <li>Quantify economic, social and environmental benefits for renewable energy in SW as a result of achieving SW target</li> </ul>	<ul style="list-style-type: none"> <li>Assess existing knowledge and understanding e.g. on jobs, GDP</li> <li>Identify gaps</li> <li>Conduct case study research on existing renewable energy projects</li> <li>Tender research &amp; engage HE/research sector</li> </ul>	GOSW RDA Regen SW SW Regional Observatory Sustainability South West	1 year	Production of analysis that has credibility with key players.	High
202 Sub regional renewable energy assessment	<ul style="list-style-type: none"> <li>Complete county, district and unitary analysis of potential</li> </ul>	<ul style="list-style-type: none"> <li>Engage chief executives, senior LA staff, councillors and planning community</li> <li>Produce framework/methodology for area based sustainability analysis and RE assessments</li> <li>Support county and district assessments and stakeholder engagement to the establish targets with wide support (action 115)</li> </ul>	GOSW RA Regen SW LAs	18 months	Production of assessments that have credibility with key players covering all counties and districts within SW.	High
203 Energy efficiency in SW	<ul style="list-style-type: none"> <li>Develop knowledge of regional energy consumption and establish potential for demand side energy efficiency in SW</li> </ul>	<ul style="list-style-type: none"> <li>Collate existing knowledge and understanding</li> <li>Identify gaps</li> <li>Tender research &amp; engage HE/research sector</li> </ul>	GOSW	1 year	Production of analysis that has credibility with key players.	High
<b>Building capacity within the renewable energy industry to deliver consistent messages and services appropriate to the needs of the SW</b>						
204 Renewable energy infra-structure	<ul style="list-style-type: none"> <li>Clarify role of Regen SW within region and its relationship with other key players</li> </ul>	<ul style="list-style-type: none"> <li>Clarifying and establishing role of Regen SW and its additional added value with sub regional energy bodies and the RE industry through ongoing dialogue</li> <li>Seek cross-sectoral partnerships in support of renewable energy development</li> </ul>	Regen SW Sub regional energy bodies RE industry	6 months	Establishing working support for Regen SW within region Number of thriving local partnerships working with Regen SW.	High

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
205 Renewable energy training	<ul style="list-style-type: none"> <li>Promote opportunities for renewable energy industry development within SW</li> </ul>	<ul style="list-style-type: none"> <li>Profile existing RE industry skills and experience</li> <li>Evaluate need/options within industry for appropriate vocational qualifications</li> <li>Enhance and further develop vocational training and CPD opportunities to the industry</li> <li>Develop a partnership project between SW HE sector to develop a SW R&amp;D centre of excellence on renewable energy</li> </ul>	RDA GOSW RE industry HE sector Training providers Regen SW	1-2 years	Numbers of renewable energy industries locating within the South West.	Medium: Important not urgent
206 Renewable energy education skills and experience	<ul style="list-style-type: none"> <li>Learn from experience of renewable energy education initiatives within the SW</li> </ul>	<ul style="list-style-type: none"> <li>Develop database of initiatives providing contact details, methodologies and lessons learnt</li> <li>Provide web access to database and publicise to potential project developers and education providers</li> <li>Develop contact network for renewable energy education providers, disseminate good practice</li> </ul>	Education & learning providers GOSW Sub regional energy bodies Regen SW Sustainability South West	1-2 years	Numbers of new education projects implemented.	Medium: Important not urgent
<b>Promoting debate within the SW about the pros and cons of renewable energy development encouraging informed opinion and decision making</b>						
207 Target audience needs	<ul style="list-style-type: none"> <li>Identify what key target audiences currently think about renewable energy</li> </ul>	<ul style="list-style-type: none"> <li>Carry out targeted market research, building on previous work, asking challenging questions related to needs of different target audiences. For example considering the impact of renewable energy development on tourism</li> </ul>	Regen SW GOSW	1 year	Clear understanding of needs of target audiences.	High
208 Communication strategy – development	<ul style="list-style-type: none"> <li>Clarify key messages regarding renewable energy development</li> </ul>	<ul style="list-style-type: none"> <li>Feed in outcomes from action 201 on quantifying regional benefits renewable energy development</li> <li>Feed in outcomes from action 121 regarding the relationship between renewable energy development and landscape character</li> </ul>	Regen SW RE industry Environment Agency environment and waste sector organisations	6 months	Development of clear messages regarding renewable energy and the environment that has some consensus, where possible, amongst the environmental lobby.	High

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
208 continued		<ul style="list-style-type: none"> <li>Establish potential role of community ownership of renewable energy schemes and small scale developments within context of overall targets. Evaluate existing and planned initiatives in SW</li> <li>Run a series of focussed and structured workshops between RE and waste management industry, seek and develop common ground where possible and appropriate</li> </ul>				
209 Communication strategy – implementation	<ul style="list-style-type: none"> <li>Carry out co-ordinated media campaign</li> </ul>	<ul style="list-style-type: none"> <li>Develop understanding of media networks within SW, reliability, credibility, coverage, impact etc.</li> <li>Create and maintain a comprehensive media contacts database at regional and local level</li> <li>Develop relationships with key media contacts</li> <li>Provide regular briefings/press releases through recognised contacts, ensure effective reactive responses to breaking issues, and develop proactive coverage of issues and opportunities</li> <li>Provide media opportunities, new schemes, community involvement, schools projects etc.</li> </ul>	Regen SW Sub regional energy bodies	6-18 months	Coverage of renewable energy in media	High

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
<b>Building capacity within SW to respond to the challenge of developing renewable energy</b>						
210 Business support	<ul style="list-style-type: none"> <li>Engage business support services, integrate renewable energy support into core services</li> </ul>	<ul style="list-style-type: none"> <li>Profile business support services within the SW</li> <li>Run a series of workshops targeting key services eg Business Link, Chambers of Commerce, outlining impact of climate change levy, role and potential for renewable energy and identifying training needs for business support staff</li> <li>Deliver training to business support services</li> <li>Identify exemplars, develop company visits schemes, promote benefits to SW businesses</li> </ul>	RDA GOSW Regen SW Sub regional energy bodies Business support services SW businesses	1-2 years	Numbers of business support services engaged and active. Numbers of businesses advised.	Medium: Important not urgent
211 LA officer & councillor support	<ul style="list-style-type: none"> <li>Support LA officers &amp; councillors in integrating renewable energy issues into core priorities</li> </ul>	<ul style="list-style-type: none"> <li>Profile potential role of LA officers in promoting renewable energy development</li> <li>Build on existing LA training analysis (officers &amp; councillors) to identify training needs</li> <li>Develop exemplars illustrating renewable energy schemes integrated with regeneration, new development, community planning</li> <li>Develop planning/design guide for LAs on renewable energy development</li> </ul>	Regen SW Sub regional energy bodies LAs Professional bodies Sustainability South West	6 months- 2 years	Numbers of LA officers & councillors engaged and active.	High

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
212 The school and community education curriculum	<ul style="list-style-type: none"> <li>Integrate renewable energy education within the delivery of both the school and community education curriculum where possible</li> </ul>	<ul style="list-style-type: none"> <li>Communicate information on curriculum links to interested education project developers and education providers</li> <li>Develop and deliver programme to support RE education within teacher training</li> <li>Develop links with in-service training providers</li> <li>Develop network of educators throughout SW able to provide support to teachers within classroom</li> <li>Evaluate teaching materials on renewable energy and promote use of best examples</li> <li>Profile experience of RE education projects within community education sector</li> <li>Provide support to community education tutors in delivery of renewable energy education initiatives, link with energy efficiency</li> </ul>	Sub regional energy bodies GOSW Education & learning providers Education support services Sustainability South West	1-2 years	Numbers of education projects initiated. Numbers of pupils/adults involved in renewable energy education/learning opportunities.	Medium: Important not urgent
213 Agriculture industry support	<ul style="list-style-type: none"> <li>Engage farming community with positive potential for involvement in renewable energy schemes</li> </ul>	<ul style="list-style-type: none"> <li>Quantify benefits to agriculture industry of renewable energy, using exemplars from within the South West and beyond</li> <li>Develop network of interested landowners, for example local producer groups, able and willing to share information, experience and practice to maximise market opportunities</li> <li>Develop and promote a database of information and support sources on RE development of interest to landowners and the agriculture industry, for example guidance on planning issues relating to renewable energy development</li> </ul>	Regen SW GOSW Sub regional energy bodies Landowners Trade associations	1-2 years	Number of landowners engaged and active.	Medium: Important not urgent

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
214 Construction industry support	<ul style="list-style-type: none"> <li>Engage construction industry with positive potential for involvement in renewable energy schemes</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate potential for integrating RE within the built environment, both regeneration and new build, using exemplars from within the SW and beyond – integration with Sustainable Construction agenda</li> <li>Develop network of interested professionals within the construction industry able and willing to share information and experience</li> <li>Develop and promote a database of support and information sources on RE development of interest to construction industry professionals</li> </ul>	Sustainability South West RDA Sub regional energy bodies Regen SW Construction industry Trade associations	1-2 years	Number of construction professionals engaged and active.	Medium: Important not urgent
215 Community Action	<ul style="list-style-type: none"> <li>Engage community groups/activists with positive potential for involvement in renewable energy schemes</li> </ul>	<ul style="list-style-type: none"> <li>Demonstrate benefits to local people of RE development using examples from within the SW and beyond</li> <li>Develop network of interested community groups/activists able and willing to share information and experience</li> <li>Develop and promote a database of support and information sources on renewable energy development of interest to community groups/activists</li> <li>Use community planning processes and Local Strategic Partnerships as vehicles to develop local community RE strategies, in partnership with the Community Renewables Initiative</li> <li>Encourage use in the South West of community involvement models involving local investment, share ownership, local community funds etc.</li> </ul>	Sub regional energy bodies Community sector RE industry Regen SW Sustainability South West	6 months-2 years	Number of community groups/activists engaged and active Number of renewable energy projects established with strong community input.	High

# 6

## Building the SW Renewable Energy Industry

### 6.1 BACKGROUND

Renewable Energy is already an established business sector in the SW with some 70+ organisations involved in various activities ranging from manufacture of systems and components to supply of specialist consultancy services. However, the vast majority of these organisations are SMEs with less than 25 employees and many are micro-businesses with only one or two staff. The total number of direct jobs in the sector is therefore currently only around 500.

There is a need to support and develop the renewable energy industry in the South West, in order for it to capture a significant slice of the rapidly growing world market in renewable energy technology and services and realise the aspiration of the region to be a leader in environmental technology.

### 6.2 BARRIERS TO DEVELOPMENT

The following analysis presents some of the issues that will need to be resolved to enable renewable energy to deliver the above potential for the South West. Each issue is referenced against the relevant action from the Action Plan in Table 5 below.

#### TECHNICAL ISSUES

There is insufficient confidence in some renewable energy technologies. Although some are now well developed and can compete with fossil fuels, many are still at the testing stage, lack a full scale commercial demonstrator or require much more R&D support (in conjunction with the higher education sector). [101, 102, 210, 211, 305, 306]

#### FINANCIAL/BUSINESS ISSUES

Obtaining project finance is a problem for small projects and small companies. Lenders and investors prefer big projects with big names behind them. Banks are unwilling to lend to SMEs without restrictive and costly terms and the finance costs for small projects can be prohibitive. [101, 111, 112, 309]

Small 'green' companies are perceived as not being capable of doing serious commercial business. They are seen as wearing green tinted spectacles. [201, 205, 302,303, 305, 306 308]

Most of the West country is perceived as a long way from the business centres of the UK, difficult to get to, only good for holidays, lacking in innovation and drive and not the place to do business with. [204, 205, 210, 304-306]

#### PLANNING ISSUES

The combination of high capital cost (compared with similar sized conventional developments) and the time spent awaiting planning decisions (where appeals are common) can create major problems for many small renewable energy businesses. [114-120, 211, 215]

A major stumbling block to local acceptance of many renewable energy projects is that very little of the equipment is manufactured locally and most of the revenue is seen as going out of the region and even out of the country. This argument has been hard to counter for wind farms, where much of the equipment comes from Danish, German and American companies. [210, 301, 302, 303, 307]

#### INSTITUTIONAL/POLICY ISSUES

The New Electricity Trading Arrangements (NETA) have caused major problems for RE projects (see Section 4.2). Although this legislation is currently being reviewed and will hopefully be modified, it is currently discouraging the smaller renewable energy developers from building new projects. [113]

#### EDUCATION AND TRAINING ISSUES

The renewable energy industry is a relatively new industry with diverse and special needs in terms of skills and expertise. In general there is a dearth of skilled and experienced staff in all sectors. Although it is relatively easy to recruit new graduates, very few have been taught the necessary skills that are specific to the industry, such as wind farm design. There are very few degree courses in renewable energy and almost no courses at NVQ level. [205, 206, 212, 304, 306, 308]

The lack of a coherent Higher Education R&D strategy for renewable energy in the region means there is little interest from academia in research projects, and few R&D facilities available that businesses can access. [201, 205, 206, 212, 305, 306, 308, 309]

## 6.3 OPPORTUNITIES FOR DEVELOPMENT

The following issues present opportunities for the development of a dynamic renewable energy sector in the South West. Each issue is referenced against the relevant action from the Action Plan in Table 5 below.

### TECHNICAL ISSUES

There are plentiful renewable energy resources in the SW, including wind, wave and biomass, just waiting to be exploited. Some other regions will demand more renewable energy than they can supply internally, meaning that the SW could be a net exporter of renewable energy. [104-106, 213-215, 112, 113, 303-306]

There are several embryonic renewable energy equipment manufacturers in the SW that given the right sort of support (marketing, proactive planning guidance, financial aid, local demonstration projects, etc) could develop into much larger businesses. [101, 111, 210, 301-306]

Several exemplar projects are already in place or close to implementation in the region, eg wind, wave, biomass, MSW gasification/pyrolysis. [101, 102, 305, 306]

### FINANCIAL/BUSINESS ISSUES

Renewable energy is the fastest growing sector of the energy market. The global energy market is growing at twice the rate of GDP. It is already a \$200,000,000 business. [102, 111, 201, 202, 204, 301]

Mainstream energy companies, eg Shell, BP, etc now all see renewables as a major business development area for the future. Their entry into the renewables market will create opportunities for SMEs to supply consultancy, services, goods, etc. [102, 205, 206, 302, 303, 307]

Additional funding for projects is available in some parts of the SW, eg Objective 1,2,3,4 & 5b Structural Funds. [111, 309]

The SW is an attractive region physically and socially and has identified Environmental Technology (including renewable energy) as a major plank in its economic development strategy. This coupled with development grants and opportunities for working with a large number of indigenous renewable energy companies should encourage inward investment by external renewable energy companies. [114-117, 202, 203, 205, 303, 304, 307, 309]

As the majority of indigenous renewable energy companies are SMEs, they should be flexible enough to exploit any new business opportunities rapidly. [111, 102, 205, 303, 309]

### INSTITUTIONAL/POLICY ISSUES

The five rounds of the Non Fossil Fuel Obligation (NFFO) raised the amount of renewable electricity generation in the UK from 1.5% to just over 3% in 10 years. The Renewables Obligation (RO) which replaces it has a target of 10% renewable electricity generation by 2010. This implies that the RO will generate five times as much business as the NFFO in the next 10 years. [113-117, 201-203, 303, 305]

The newly introduced Climate Change Levy (CCL) will motivate large heat and power users towards using renewable energy directly. [102, 112, 201, 303]

Table 5: Building the South West Renewable Energy Industry: Action Plan  
 Actions are grouped according to the three objectives outlined in Section 3.3.

ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
<b>Promoting indigenous renewable energy businesses</b>						
301 Identify RE markets	<ul style="list-style-type: none"> <li>Identify potential markets for goods and services over the next 10 years</li> </ul>	<ul style="list-style-type: none"> <li>Market study</li> </ul>	RDA, GOSW Regen SW RE industry	12 months	Track growth of market and RE businesses.	Medium: Urgent not important
302 Identify indigenous RE companies	<ul style="list-style-type: none"> <li>Identify all companies in the region involved in RE and assess potential for growth</li> </ul>	<ul style="list-style-type: none"> <li>Compile from existing Environmental Technology database + mailshot questionnaire or phone call</li> </ul>	RDA, Regen SW GOSW RE industry	6 months	Track growth of RE businesses.	High
303 Develop and promote the RE sector in the SW	<ul style="list-style-type: none"> <li>Increase market opportunities and company exposure</li> </ul>	<ul style="list-style-type: none"> <li>Annual regional RE conference and exhibition</li> <li>Inward and outward missions</li> <li>Marketing support, advice, brochure design, PR, etc</li> <li>Regional branding for RE</li> </ul>	Regen SW, RDA, GOSW, RE industry  Regen SW, RDA, GOSW, RE industry  Regen SW, RDA, GOSW, RE industry  Regen SW, RDA, GOSW, RE industry	Annual  Every 6 months  As required  6 months	Monitor attendance, sales lead conversions.  Monitor attendance, sales lead conversions.  Monitor growth of RE business sector.  Monitor sale leads.	High
304 Sector co-ordination	<ul style="list-style-type: none"> <li>Co-ordinate, facilitate and promote regional RE activities and businesses</li> </ul>	<ul style="list-style-type: none"> <li>Clarify sector needs in terms of co-ordination, define Regen SW role and services to the sector</li> <li>Review links with existing networks e.g. RDA's environmental technology group</li> </ul>	Regen SW RDA GOSW	6-12 months	Monitor buy in of partner organisations.	High

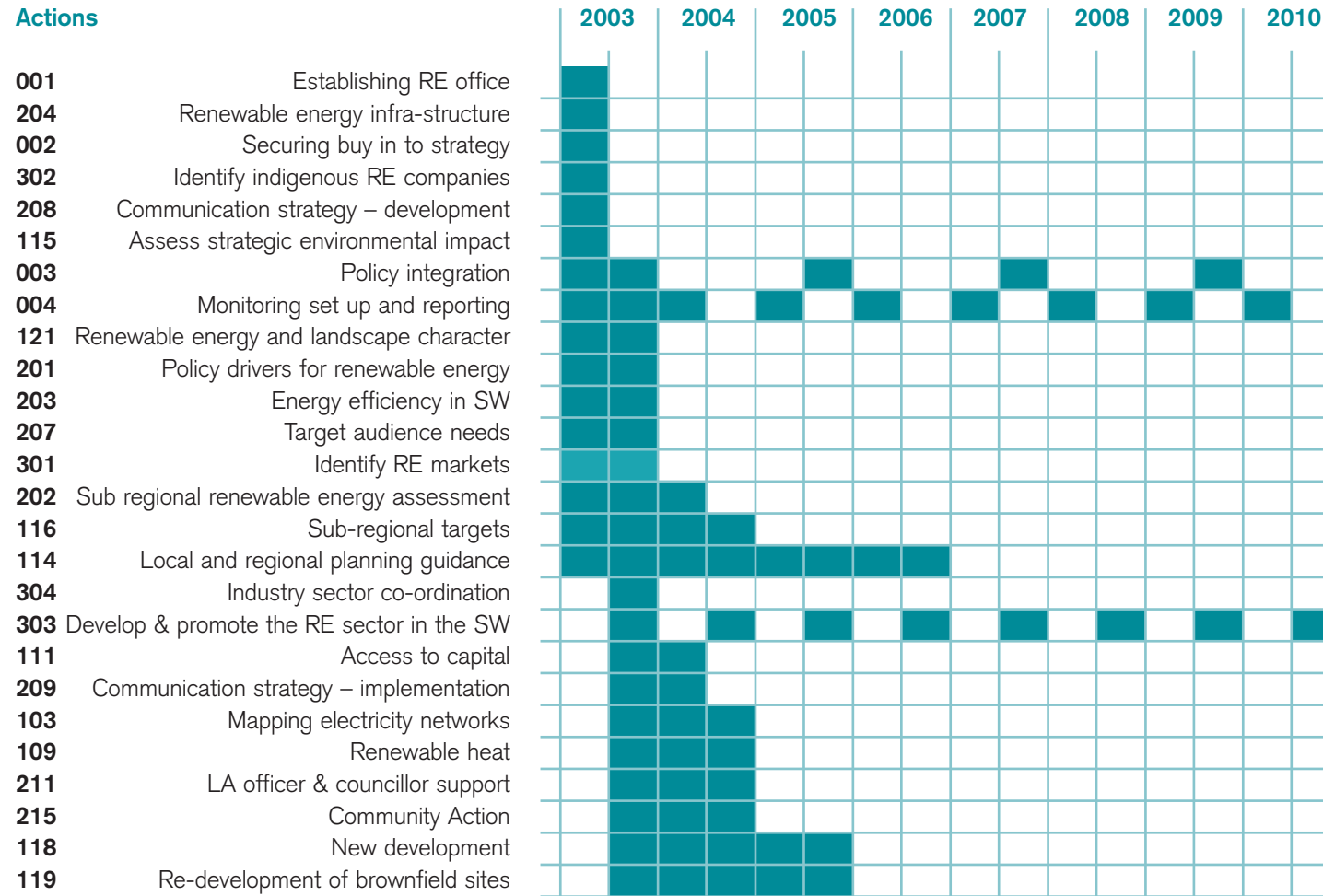
ACTION	WHAT DO WE NEED TO DO?	HOW DO WE DO IT?	WHO COULD DO IT?	TIMESCALE	HOW TO MONITOR IMPACT/SUCCESS	PRIORITY
<b>Establishing a 'second to none' track record for the region in renewable energy</b>						
305 Establish RE track record	<ul style="list-style-type: none"> <li>Maximise number of technology exemplar projects within region</li> </ul>	<ul style="list-style-type: none"> <li>Increase R&amp;D effort</li> <li>Encourage proactive planning, link to actions 114 to 121</li> <li>Additional financial support for near economic technologies, link to action 111</li> </ul>	Regen SW RDA GOSW LAs Environment Agency	1-3 years	Monitor success rate.	High
306 Centre of Expertise	<ul style="list-style-type: none"> <li>Make SW the global Centre of Expertise for RE</li> </ul>	<ul style="list-style-type: none"> <li>Establish a coherent RE R&amp;D strategy in all HE establishments in region (Faraday Partnership), link to action 205</li> <li>Link HE and RE business R&amp;D projects</li> <li>Facilitate funding, partnering, networking</li> <li>Develop good ideas</li> <li>Let the rest of the world know</li> </ul>	HE establishments RDA Regen SW GOSW RE industry	18 months-3 years	Monitor R&D activity and commercial success.	Medium: Important not urgent
<b>Increasing the number of renewable energy companies, turnover and jobs in the region</b>						
307 Promote inward investment for RE	<ul style="list-style-type: none"> <li>Identify external RE businesses with inward investment potential that complement indigenous RE industry and attract them to the region</li> </ul>	<ul style="list-style-type: none"> <li>Internet/literature search</li> <li>Contact UK Embassies, work with DTI</li> <li>Assemble 'bait' package</li> <li>Target development sites</li> <li>Canvas companies and identify opportunities</li> </ul>	RDA Regen SW GOSW LAs	6 months/on-going	Monitor success rate.	Medium: Important not urgent
308 Staff recruitment	<ul style="list-style-type: none"> <li>Increase number of skilled staff available</li> </ul>	<ul style="list-style-type: none"> <li>RE training programmes at HE, Continuing Education and NVQ level, link to action 205</li> </ul>	Academia Business support agencies	1-2 years	Monitor qualifications gained and job uptake.	High
309 Financial support	<ul style="list-style-type: none"> <li>Make funding RE development easier</li> </ul>	<ul style="list-style-type: none"> <li>Maximise access to project finance, link to action 111</li> <li>Channel funding from EU Structural Funds into RE projects/R&amp;D/soft loan schemes</li> </ul>	Financiers Regen SW RDA GOSW	1-4 years	Monitor success of projects, etc.	High

# 7 Action Plan Timeline

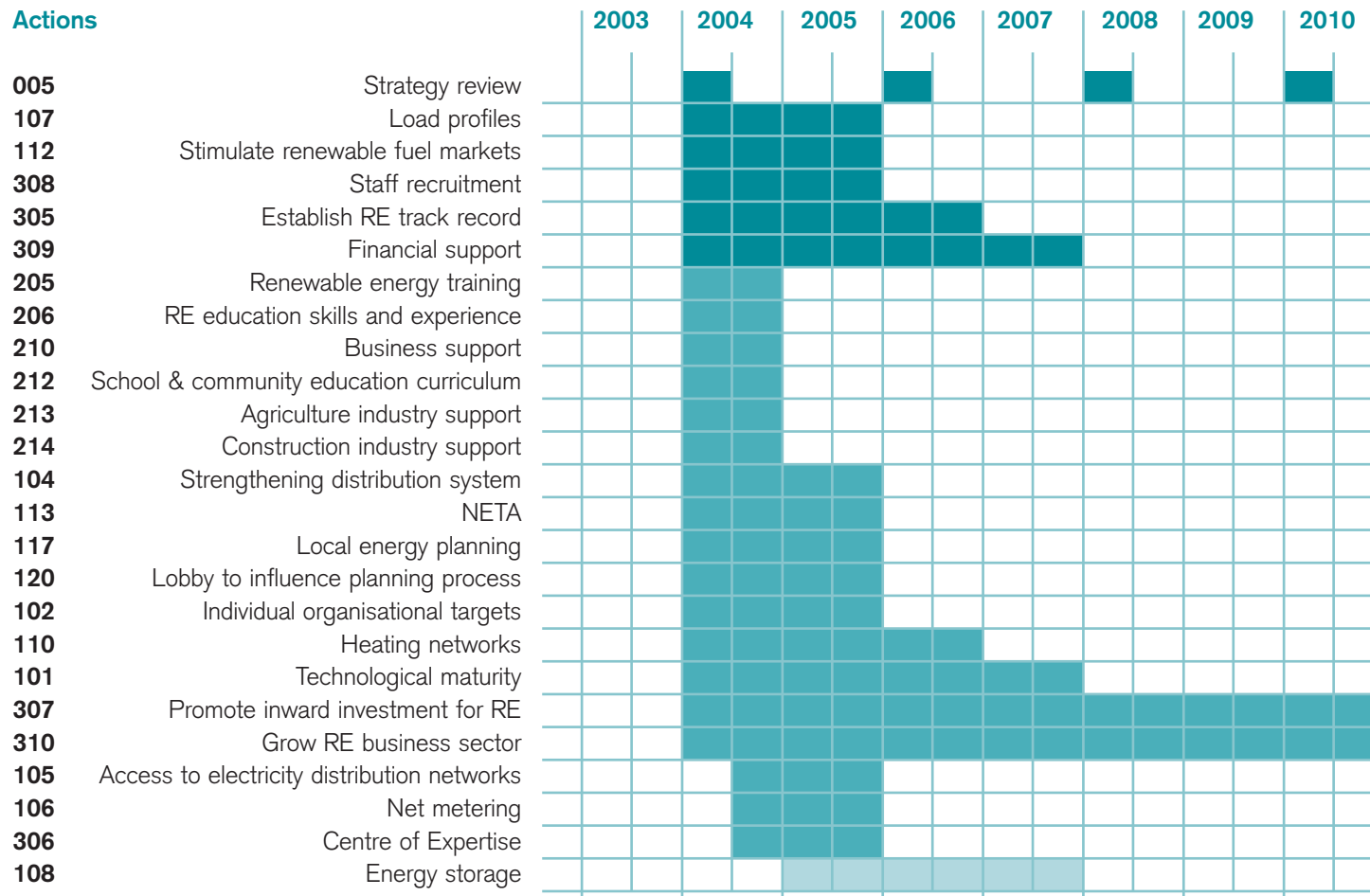
This timeline summarises the action plans outlined within tables 2, 3, 4 and 5 within sections 4, 5, 6 and 7 of the strategy. The actions are presented here sequentially in

order of delivery and are distinguished in terms of priority. The high priority actions are considered to be important and urgent. The medium priority actions are considered

to be either important but not urgent or urgent but not important. The low priority actions are considered to be neither important nor urgent.



**Actions**



- High priority action
- Medium priority action
- Low priority action



## Next Steps

### 8.1 WHO SHOULD BE INVOLVED

In order to develop an effective strategy it is important to be able to define the target audience in terms of its role in delivery. The analysis contained in Annex 3 defines four broad target groups:

- The renewable energy industry – responsible for providing goods and services to the other groups within the delivery of a renewable energy strategy.
- Policy makers – create framework within which the industry, opinion formers/gatekeepers and decision makers operate.
- Opinion formers/gatekeepers – play key role in forming the opinions of, and providing access to the industry, policy makers and decision makers.
- Decision makers – make key decisions about whether renewable projects happen or not.

There is overlap between the groups. Annex 3 outlines in detail the full analysis of the types of organisations/ interests that fall within each of these four groups and provides a useful tool for considering the different needs of a diverse range of stakeholders.

For the purpose of this strategy, the analysis has been summarised as outlined within the table opposite. These are the organisations/interests that are actually referred to within each action plan within the strategy. The summary below highlights within which section of the strategy and against which action each organisation/ interest has been highlighted.

It is also important to bear in mind that this strategy does not cover everything that needs to be done to develop renewable electricity within the South West. As a regional strategy it does not cover the full range of actions that need to be carried out by sub regional and local organisations. This strategy does however provide a framework within which the range of 'on the ground activity' can take place.

TARGET AUDIENCE	GROUP	ENABLING ACTIONS	DEPLOYING RENEWABLE ENERGY	SKILLS AND AWARENESS	BUILDING SW RE INDUSTRY
Regen SW	RE industry & Opinion formers/Gatekeepers	002 003 004 005	101 102 103 104 105 106 107 108 109 111 112 118 121	201 202 204 205 206 207 208 209 210 211 213 214 215	301 302 303 304 305 306 307 309
RE Industry	RE industry		101 105 107 108 112 116	204 205 208 215	301 302 303 306
Sub regional energy bodies	RE industry		116	204 209 210 211 212 213 214 215	
Regional Assembly	Policy makers	002 003 004 005	109 110 114 115 121	202	
Regional Development Agency	Policy	002 003 004 005	101 102 105 106 108 109 110 111 113 119 120	201 205 210	301 302 303 304 305 306 307 309
Government Office for the South West	Policy makers	002 003 004 005	101 104 105 107 108 109 110 111 114 115 116 117 118 120 121	201 202 203 205 206 207 210 212	301 302 303 304 305 306 307 309
Ofgem/DTI/Distribution Network Operator	Policy makers		103 104 105 106		
Local Authorities	Policy makers & decision makers		102 107 108 110 111 112 113 114 115 116 118 119 120	202 211	305 307
Statutory consultees	Policy makers		114		
Environment Agency	Policy makers & Decision makers		114 115 116 121	208	305
Environment sector bodies	Opinion formers/Gatekeepers		121	208	
SW Regional Observatory	Opinion formers/Gatekeepers	004		201	
Sustainability South West	Opinion formers/Gatekeepers	003	114 115 119 120	201 206 211 212 214 215	
HE sector/training, education and learning providers	Opinion formers/Gatekeepers			205 206 212	306 308
Business support services	Opinion formers/Gatekeepers			210	308
Professional bodies/trade associations/trade unions	Opinion formers/Gatekeepers			211 213 214	
Community/voluntary sector networks/groups	Opinion formers/Gatekeepers			215	
Businesses	Decision makers		102 107 108	210	
Financiers	Decision makers		111		309
Landowners	Decision makers			213	
Foresters	Decision makers		109 112		
Construction industry	Decision makers			214	

## 8.2 REGEN SW

Regen SW will coordinate and monitor the delivery of this strategy. In particular, Regen SW will ensure that the strategy becomes embedded within policy and practice within the region and through a process of ongoing dialogue, ensure that each action has a lead organisation responsible for its implementation. Through this dialogue with key stakeholders, Regen SW will also seek to build support for the strategy and encourage organisations to endorse its action plan, add their name to whatever actions are appropriate or add new actions as situations change.

## 8.3 REVIEW, MONITORING AND FEEDBACK

The regular review of the strategy, once every two years, becomes an important opportunity to consolidate all the changes that might have occurred to that point. This will ensure that the strategy will remain relevant to the changing situation that renewable energy development will take place within.

In addition to this strategy review Regen SW will also report once a year on progress in delivering the strategy. This will ensure that wherever possible those actively involved in delivering the strategy receive regular feedback on the collective impact of the regions efforts.

## 8.4 LOOKING TO 2020

This strategy does have a 2010 focus. However, thought will be required on how this strategy plays out to 2020, to ensure that it comes into line with the longer time frame outlined within the Energy White Paper. This will be done alongside the effort to integrate this strategy into a broader sustainable energy strategy for the South West

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## ANNEX 1: MEMBERS OF THE RENEWABLE ENERGY GROUP

REGEN SW BOARD MEMBERS		
Name	Surname	Company
Colin	Skellett	Wessex Water (Chair)
Martin	Alder	Association of Electricity Producers (Vice Chair)
John	Blight	Embley Energy
Peter	Capener	Independent sustainable energy consultant
Nic	Cooper	Compact Power
Neil	Evans	Energy for Sustainable Development Ltd
Claire	Gibson	South West RDA
Leslie	McWilliam	Sustainability South West
Matt	Partridge	National Wind Power
Simon	Roberts	Centre for Sustainable Energy
Haydn	Scholes	Renewable Energy Office for Cornwall & CSMA Consultants
Dominic	Vincent	South West RDA (Observer)
Clare	Brooke	SW Regional Assembly (Observer)
Mike	Twomey	Government Office for the South West (Observer)
Deborah	Chappel	Company secretary – Bevan Ashford Solicitors

RENEWABLE ENERGY NETWORK		
Name	Surname	Company
Mike	Ackerman	University of West of England
Graham	Ayling	Severn Wye Energy Agency
Paul	Baker	Devon D.A.R.E
Giles	Boardman	Plymouth Energy Efficiency Advice Centre
Stephen	Bohane	South West RDA
David	Coley	Centre for Energy and Environment, Exeter University
David	Cotterill	Western Power Distribution
Juliet	Davenport	Unit[e]
Angela	Duignan	Ambient Energy

Name	Surname	Company
Andrew	Garrad	Garrad Hassan and Partners Ltd
Tim	German	Cornwall Sustainable Energy Partnership
Dan	Green	Wessex Water Services Ltd
Pete	Grigorey	Environment Agency
Fiona	Hearn	Government Office for the South West
Tony	Hoare	University of Bristol (Geog dept)
Helen	Holland	South West RDA
Simon	Hooton	South West RDA
Tim	Horwood	Cornwall County Council
Cathy	Hough	Energy for Sustainable Development
Paul	Isbell	Bristol County Council
Denis	Johnston	Energistics Engineering Services Ltd
Gareth	Jones	Wessex Water Services Ltd
Kate	Levick	Forum for the Future
Tristan	Mackie	TMEP
Ian	McCubbin	AEA Technology/ ETSU
Janine	Michael	Centre for Sustainable Energy
Nick	Morley	Renewable Energy Office, Cornwall
Colin	Palmer	British Wind Energy Association
Mike	Patching	Garrad Hassan and Partners Ltd
Michael	Poole	Horizon South West
Jonathan	Porritt	South West RDA
Adrian	Robinson	Renewable Energy Company
Kylie	Russell	C-CLIF
Derek	Scally	London Electricity
Nicola	Steen	Association of Electricity Producers
Jean	Taylot	Camborne School of Mines
Alison	Turnbull	Ambient Energy
Dr R	Uncles	C-CLIF
Dale	Vince	Renewable Energy Company
Neil	Whitehead	Government Office for the South West
Sarah	Williams	Government Office for the South West
Sam	Wilson	Countryside Agency
Adrian	Wright	Enact Energy
Mark	Yeoman	Cornwall Objective One

## ANNEX 2: LINKS TO INTERNATIONAL, NATIONAL AND REGIONAL POLICY AND PRACTICE

Renewable energy developments take place within the wide framework of existing and emerging policies and initiatives in different but related areas. To be successful, a strategy for renewable energy development must recognise the wider context of such policies and initiatives, at a global, national and regional level.

### GLOBAL

Internationally, the greatest driver for renewable energy development is the global response to climate change and the importance of renewable energy supplies in its mitigation. Another major driver for developing and intermediate economies is the need for secure local energy supplies. The main global mechanism chosen for all countries to work together on climate change is the UN Framework Convention on Climate Change, taken forward by the Kyoto Protocol in 1997, which established targets for the reduction of greenhouse gas emissions.

The global target is to achieve a 5% cut in greenhouse gas emissions on 1990 levels by 2008-12. It is however increasingly recognised that to mitigate climate change will in fact require global cuts in order of 60% over 1990 levels within the next fifty years.

There is a global trend towards market based environmental policies, and increasingly towards the use of tradable instruments as a means of meeting greenhouse gas policy objectives. This type of mechanism provides a rapidly growing business opportunity, which the renewable energy sector is well placed to meet.

The local development of renewable energy is entirely in accordance with the aims and objectives of the Kyoto Protocol, and by setting and meeting its own targets the South West region will help the UK and Europe to meet these global needs.

### EUROPE

The European Union is a leading protagonist in the Kyoto negotiations. The EU target under the Kyoto Protocol is an 8% reduction against 1990 levels by 2008-12. Policy instruments to implement this target are still under development, but include the strengthening of existing measures as well as new mechanisms such as an EU wide greenhouse gas emissions trading scheme starting in 2005.

The EU sees the strong development of renewable energy supplies as one of the cornerstones of its strategy to meet global obligations. As greenhouse gas emissions arise mainly from the use of fossil fuels, the principal mitigation options are limited to reducing energy demand, through energy efficiency measures, and switching energy supplies to lower carbon or renewable energy sources. The EU target for national supplies of renewable energy is being enacted through the Renewable Energy Directive which requires 12% of European energy supplies, and 22.1% of electricity, to be sourced from renewable energy by 2010. For the UK the Directive stipulates an indicative target of 10% by 2010.

Alongside these targets the EU has also proposed a trading scheme for renewable energy or 'green' certificates. The emergence of markets in both green certificates and carbon emission permits will act as an increasingly important driver for the development of renewable energy.

## UK

The UK's share of the EU Kyoto target is a 12.5% cut in greenhouse gas emissions from 1990-2008/12. The UK government has consistently taken a lead in international negotiations, and its Climate Change Programme 2000 sets out measures to achieve a more ambitious national target of 20% CO<sub>2</sub> reductions by 2010. The programme envisages increasing energy efficiency and renewable energy deployment, as well as more power station fuel changes, from coal to gas fired.

The Government has set a target for renewable electricity supplies of 10% by 2010 and 5% by 2003 (against a current total of 3%). The Renewables Obligation is the principal policy instrument for achieving this target, and will require all electricity suppliers to gradually increase the proportion of electricity supply from renewable sources year on year. Suppliers can use tradable renewable energy certificates to demonstrate compliance with their obligation. Alternatively they can pay a buy-out price for the proportion of their target that they fail to meet.

National planning policies have a strong influence on local renewable energy developments and the government is presently pursuing a major overhaul of the planning system. This will include a re-draft of Planning Policy Guidance Note 22 (PPG22), which relates to renewable energy, as well as a range of structural changes to the system of land-use planning in the UK including a move towards more local and community based planning.

Beyond 2010, deep cuts in greenhouse emissions will continue to be required. The Royal Commission on Environmental Pollution has recently recommended that the UK needs to achieve a 60% cut in greenhouse gas emissions within the next fifty years. In order to be robust, regional and local strategies will need to look beyond existing national targets, and aim for greater reductions in emissions than required by current national policy. The Government's Performance and Innovation Unit (PIU) have published the results of a major review of energy policy, which makes a number of recommendations for the development of low carbon technologies and policies, including recommending higher targets for energy efficiency and renewable energy for 2020. The report also recommends that Government should initiate a national public debate about sustainable energy, including the role of renewables.

In February 2003 the government published its first Energy White Paper for many years. The White Paper recognised the imperative behind reducing carbon dioxide emissions and accepted the recommendations from RCEP regarding a 60% cut by 2050. However, whilst accepting the importance of making 'real progress' by 2020 the White Paper did not adopt the PIU recommendations for setting higher 2020 targets. The White Paper does highlight an aspiration to double the 10% 2010 target by 2020. It does also make a commitment to put in place the policies to achieve this. Regional delivery was a theme within the White Paper. The importance of regional targets (on renewables and energy efficiency) was highlighted, together with the need to develop an action plan showing how regional bodies and local authorities intend to deliver objectives on energy.

Closely linked to the issue of climate change and renewable energy generation is the issue of waste. The generation of energy from landfill gas and from the combustion of municipal and industrial wastes is often classed as a form of renewable energy. The national waste management strategy is based on three main principles: the waste hierarchy, the proximity principle and the concept of Best Practicable Environmental Option. The waste hierarchy means that local waste management policies should prioritise waste management options in the following order: reduction, re-use, recovery (recycling, composting and energy), disposal to landfill. The proximity principle requires wastes to be disposed of as close to the place of production as possible, in order to avoid placing the environmental costs on communities not responsible for their production and also to avoid the costs of transport. All planning and project decisions take place within the framework of the Best Practicable Environmental Option, which requires decision makers to minimise danger to the environment as a whole at acceptable cost in both the short and the long term.

The Waste Strategy 2000 sets challenging targets, to reduce putrescibles in landfill by 65% by 2020, and to recycle or compost 33% of domestic wastes by 2015. Waste Planning Authorities receive guidance through the Planning Policy Guidance Note on planning and waste management, which sets out the Government's policies on planning and its relevance to waste management.

## REGIONAL

The Government's drive to establish regionally based targets for renewable energy has resulted in assessments of resource potential in all regions. In the South West this assessment, undertaken on behalf of GOSW, recommended a 11%-15% generation target for renewable energy by 2010 for the South West. This target is now referred to in the South West's RPG10, which highlights the need for local authorities to include policies to support it in their development plans. The Government's current planning green paper proposes to make RPG's statutory, which will strengthen this requirement.

GOSW and the SW Regional Assembly are planning to develop sub-regional targets for renewable energy with local authorities, and to provide additional guidance and locational criteria for local authorities to assist the achievement of the regional target. The SWRDA has highlighted a significant role for renewable energy, and the environmental technology sector as a whole, in its Regional Strategy 2000-2010. The work of the South West Renewable Energy Group, initiated by the South West RDA, has played an important role in identifying how renewable energy can be promoted and supported at a regional level, including the development of this strategy. Increasing the role of renewable energy was also one of three 'climate change' objectives within the South West's Regional Sustainable Development Framework, developed by Sustainability South West and endorsed by the Regional Assembly.

At a sub regional level, the work of sub regional organisations such as Renewable Energy Office for Cornwall (REOC) and the Severn Wye energy agency have played a valuable role in supporting local renewable energy initiatives. The Energy Efficiency Advice Centres that cover all of the South West are currently tendering for pilots to become renewable energy advice centres. There are Local Authority Support initiatives funded by the Energy Saving Trust in Cornwall, Devon, Gloucestershire and Bristol & Somerset that are encouraging greater political and officer support for sustainable energy issues.

The role of renewable energy as a driver for rural regeneration has been recognised by the Countryside Agency in the development of its Community Renewables Initiative. Examples of current community based activity related to renewable energy include the work of DARE (Devon Association for Renewable Energy), and the implementation of Solar Clubs in a number of locations. Detailed work is going on at a local authority level to undertake local renewable energy planning, including Devon & Cornwall at a county level and Bristol at a district/unitary authority level. Foot and Mouth Recovery programmes are forcing new avenues to be explored for rural diversification, which could include the production of biomass fuels. Other programmes such as the Market and Coastal Towns Initiative are also providing new opportunities to integrate renewable energy into regeneration initiatives.

Activities such as these at the regional and local level will be increasingly important drivers for renewable energy development in the years to come.

## ANNEX 3: TARGET AUDIENCES

In order to develop an effective strategy it is vital that the target audience is defined in terms of its role in delivery. This analysis defines four broad target groups:

- The renewable energy industry: Responsible for providing goods and services to the other groups within the delivery of a renewable energy strategy.
- Policy makers: Create framework within which the industry, opinion formers/gatekeepers and decision makers operate.
- Opinion formers/gatekeepers: Play key role in forming the opinions of, and providing access to the industry, policy makers and decision makers.
- Decision makers: Make key decisions about whether renewable projects happen or not.

There is overlap between the groups. The table below outlines in detail the full analysis of the types of organisations/interests that fall within each of these four groups and provides a useful tool for considering the different needs of a diverse range of stakeholders.

RENEWABLE ENERGY INDUSTRY	POLICY MAKERS
<p>Responsible for providing goods and services to the other groups within the delivery of a renewable energy strategy.</p> <ul style="list-style-type: none"> <li>• Manufacturers</li> <li>• Equipment Suppliers</li> <li>• Developers</li> <li>• Generators</li> <li>• Energy Suppliers</li> <li>• Energy Efficiency Advice Centres</li> <li>• Energy Agencies</li> <li>• Energy non-governmental organisations</li> <li>• Renewable energy consultants</li> </ul>	<p>Create framework within which the industry, opinion formers/gatekeepers and decision makers operate.</p> <ul style="list-style-type: none"> <li>• National government (DTI, DEFRA) and regulator (Ofgem)</li> <li>• Councillors</li> <li>• Senior LA Officers</li> <li>• SWRDA</li> <li>• Regional Assembly</li> <li>• GOSW</li> <li>• Distribution Network Operator</li> <li>• Structure/local plan teams</li> <li>• Statutory consultees e.g. Countryside Agency, Environment Agency</li> <li>• Waste management plan teams</li> </ul>

OPINION FORMERS/GATEKEEPERS	DECISION MAKERS
<p>Play key role in forming the opinions of, and providing access to the industry, policy makers and decision makers.</p>	<p>Make key decisions about whether renewable projects happen or not.</p>
<ul style="list-style-type: none"> <li>• Confederation of British Industry (CBI) SW</li> <li>• National Farmers Union SW</li> <li>• Professional institutions eg Royal Town Planning Institute</li> <li>• Trade bodies eg British Wind Energy Association</li> <li>• Local celebrities</li> <li>• Media: radio, TV, newspapers, trade press</li> <li>• Community networks eg regeneration partnerships</li> <li>• Schools &amp; colleges</li> <li>• Higher Education</li> <li>• Local Education Authorities</li> <li>• Learning and skills councils</li> <li>• Community education providers</li> <li>• Education, Business Partnerships</li> <li>• Business link advisory services, chambers of commerce</li> <li>• Universities</li> <li>• Sustainability South West</li> <li>• South West Regional Observatory</li> <li>• Wider environmental groups eg Friends of the Earth, Greenpeace, RSPB</li> <li>• LA officers, e.g. covering Local Agenda 21, regeneration, housing</li> <li>• Waste management industry</li> <li>• Energy Watch SW</li> </ul>	<ul style="list-style-type: none"> <li>• The General Public</li> <li>• Businesses</li> <li>• Farmers &amp; Land Owners</li> <li>• Foresters</li> <li>• Community Groups eg. Residents associations</li> <li>• Planners</li> <li>• Architects</li> <li>• Property Developers</li> <li>• Financiers</li> <li>• Councillors</li> <li>• Environment Agency</li> </ul>

For the purpose of this strategy this analysis has been summarised as outlined within Section 4. These are the organisations/interests that are actually referred to within the action plan of the strategy.

## **ANNEX 4: KEY REGIONAL & NATIONAL ORGANISATIONS ENDORSING THIS STRATEGY**

Association Of Electricity Producers

Environment Agency

Government Office for the South West

Renewable Power Association

South West of England Regional Development Agency

South West Regional Assembly

Sustainability South West

Endorsement of the strategy implies support for its vision, the broad strategy laid out for achieving it, and agreement with any action points for which an organisation or sector is identified. It does not imply support for all of the action points in the plan, since the breadth of areas covered by the plan make that unlikely for many stakeholders.

## **GLOSSARY**

CHP Combined heat and power

CPD Continuing professional development

DNO (Electrical) distribution network operator

DTI Department of Trade and Industry

ESCO Energy services company

EU European Union

GDP Gross domestic product

GOSW Government Office of the South West

HE Higher education

LA Local authority

MSW Municipal solid waste

NETA New Electricity Trading Arrangements

NVQ National Vocational Qualification

Ofgem Office of Gas and Electricity Markets

RA Regional Assembly

RE Renewable energy

REG Renewable Energy Group  
(of the South West)

RO Renewables Obligation

SWRDA South West of England  
Regional Development Agency

“We support this strategy and the measures it contains to make the South West a focal point for the renewables industry”

David Porter, Association of Electricity Producers

“We fully support the vision and the broad thrust of this strategy document”

Mike Twomey, Government Office for the South West

“We support the promotion of renewable energy to contribute to a more sustainable future for the South West”

Lesley Mcwilliam, Sustainability South West

“Renewable Energy is an important element of the Regional Economic Strategy and the RDA is committed to supporting the wider development of renewable energy in the region”

Simon Hooton, South West of England Regional Development Agency

“The Regional Assembly will continue to work with partners to support delivery of the regional renewable energy target”

Clare Brooke, South West Regional Assembly

“We very much welcome your strategy document and have great pleasure in supporting its plans”

Philip Wolfe, Renewable Power Association

“We look forward to working with you to deliver this strategy over the coming years”

Richard Cresswell, Environment Agency



Further copies of this report are available at [www.regensw.co.uk](http://www.regensw.co.uk) or by post from Regen SW, Sterling House, Dix's Field, Exeter EX1 1QA. Tel: 01392 229 394

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