

# Regional Woodfuel Supply Chain Project Project Reference: 6584



Final Progress Report to accompany Claim 21 for Woodfuel East to 31<sup>st</sup> December 2013

13<sup>th</sup> February 2014





Department for Environment Food & Rural Affairs

Woodfuel East is supported under the Rural Development Programme for England by Defra and the EU with additional support from the Forestry Commission.

#### **Executive Summary**

This is the final report on Woodfuel East's progress on grant spend and outputs for the entire Woodfuel East project implementation period from August 2008 to 31<sup>st</sup> December 2013.

Woodfuel East was originally set up as a regional Wood Fuel Initiative for the East of England, supported under the Rural Development Programme for England (RDPE) by the then East of England Development Agency (EEDA - subsequently Defra) and the EU with additional support from the Forestry Commission. Approval for the project was given in August 2008 and the first grant applications were invited in December of that year. The project was fully staffed by April 2009. The project concluded on 31<sup>st</sup> December 2013.

The initial aims of Woodfuel East were to bring an additional 110,000 green tonnes of roundwood to market per annum as woodfuel, bringing 15,000 ha of undermanaged woodland into management. This would achieve carbon savings of 80,000 tonnes of carbon dioxide (CO2e).

Woodfuel East set about meeting the project's aims and objectives by:

- Raising awareness
- Giving help and advice (i.e. subsidised advisory services available for woodland owners)
- Organising training and support training organised by others
- Linking supply and demand (a market place facility for timber was made available on our website)
- Providing a searchable database on the website for service providers
- Providing strategic investment support (Grants)

The final achievements of Woodfuel East are notable:

Woodfuel East has spent a Defra grant of £3,281,800 (capital and revenue) and secured £3,584,000 of private sector investment.

For **£2,467,300** capital grant expenditure, Woodfuel East has delivered **120** completed grant projects.

Against the initial project aims Woodfuel East has:

- Brought an additional **114,600** green tonnes of timber to market annually as woodfuel
- Brought 9880ha of unmanaged / undermanaged woodland into positive management
- Achieved CO<sub>2</sub> savings of **96,800** tonnes per year by displacing oil

Woodfuel East has also:

- Helped to create 36 jobs (FTE equivalent), with the potential for further job creation as completed capital projects progress
- Delivered 26 formal training courses

• Delivered 76 advisory services to woodland owners

Other notable successes include the business support provided to microenterprises and the ongoing advice and encouragement provided to these businesses and Woodland Owners. Feedback from applicants through evaluation reports attests to the high regard with which Woodfuel East is held within the sector.

Woodfuel East has helped to demonstrate the forestry and woodfuel sector's ability to provide positive impacts for woodland management, the abatement of carbon emissions and growth in the rural economy. As these areas continue to have a supportive policy context it is hoped that the successes of Woodfuel East and the lessons learnt in delivering the project will be will be noted and carried forward into future funding Programmes, such as the Farming and Forestry Productivity Scheme.

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#### 1. Introduction

This progress report has been prepared to accompany Woodfuel East's Claim 21 to Defra. As Claim 21 will be the final submitted to Defra, this report will be the final progress report on Woodfuel East.

Quarterly progress reports have been submitted throughout Woodfuel East's implementation period since the start of the project in 2008; there has been a midterm review (Edwin van Ek, December 2010) and an independent evaluation report on Woodfuel East has been completed for submission with the final claim. The background, set up and structure of the Woodfuel East project is described in detail in these documents and so will not be included in the body of this report to avoid unnecessary duplication.

## 2. WFE Exit Strategy

The exit strategy for Woodfuel East was first developed by Edwin van Ek in early 2013; this was finalised with Defra in May 2013 and presented at Woodfuel East's Steering Committee meeting on 4<sup>th</sup> June 2013.

Progress against the milestones of the Exit Strategy have been good, but there have inevitably been changes to the original. The schedule below details progress achieved against remaining outstanding milestones to date.

## Table 2: Exit Strategy Milestones

30/06/2013	Plaques for projects over £40,000	Source and distribute plaques to 13 projects with funding over £40,000 that have not received one yet.
		This milestone was noted in the last report as still outstanding and has now been achieved. A supplier of the plaques was confirmed and the relevant applicants have contacted to confirm project strap lines for their plaques.
		Plaques were ordered on 22/11/2013; the order was completed on 28/11/2013.
		Plaques were provided for:
		WESISP 153 Harvesting
		Machinery WESISP 152 Woodfuel
		Infrastructure & Machinery WESISP 148 Forest Harvester
		Project WESISP 130 Woodland
		Infrastructure Project WESISP 121 Forest Road
		Construction WESISP 113 Forestry Forwarder
		Project WESISP 105 Wood Fuel Project

		WESISP 099 Woodfuel Storage
		and Processing WESISP 097 Woodfuel Second Chipper Project WESISP 082 Harvesting Woodland Access & Timber Extraction Project WESISP 064 Estates Woodfuel Supply Project WESISP 054 Expansion WESISP 162 Heating System
31/03/2013	Update WFE website	Update WFE website text to reflect status of the project based on the outcome of the last formal funding round. Some updates have been made to the website. Further changes will be made over the next couple of months.
		Final actions will include contacting the Supplier's listed and advise them to migrate their details to the Sylva Myforest website (http://sylva.org.uk/myforest/businesses); the Stoves on Line website (http://www.stovesonline.co.uk/services/firewood-suppliers.html) or the Carbon Trust and Biomass Energy Centre website (http://www.woodfueldirectory.org/).
		This action is scheduled to be completed to meet the proposed milestone; however priority is given to completing the final claim and necessary supporting actions.
15/10/2013	Official Final Claim Date for WFE Grant Recipients	We originally aimed to only receive grant claims from projects after this date in exceptional circumstances.
		The offer letter letters for the last approved projects had a claim date of 15/11/2013. In some cases this has been extended to 30/11/2013 to allow projects to complete.
		The intention was that no grant claims would be accepted after this date as there would be insufficient processing time left for remnant staff. However, one project's claim submitted before this omitted proof of defrayal and required that the applicant provide a bank statement; the finalised claim was therefore accepted on 3/12/2013.
7/11/2013	Claim 20	Expenditure 1 <sup>st</sup> July 13 - 30 <sup>th</sup> September 13.
13/11/2013	Edwin van Ek leaves WFE	Edwin left to take up post with UK T & I in mid November. Sid Cooper fills post of project

		manager (wef 4/11/2013)
4/12/2013	Steering Committee Workshop	Workshop with the WFE Steering Committee members to feed into the final report and evaluation. This event was organised by Sid Cooper with input from Stuart Grainger. The event ran successfully.
		An overview of Woodfuel East's final achievements was given by Sid Cooper via Powerpoint. Two grant applicants (Tom Freeman of Windmill Arb Services and Simon Kroon of the South Pickenham Estate Company Ltd) had been invited to give feedback of their experience dealing with Woodfuel East. This was largely positive and well received by the Steering Committee.
		Feedback on the Woodfuel East project was then given by Steve Scott of the Forestry Commission, and David Sillett of Defra, before the Steering Committee engaged in a facilitated plenary session facilitated by David Bole of the FC.
		The purpose of this was to seek feedback on questions prepared by Dr Chrissie Pepper of Sustainability East, to inform the external evaluation report being prepared by Sustainability East.
31/12/2013	Project Monitoring	WFE Staff to obtain feedback for evaluation.
	and Evaluation	We have had 65 evaluation reports returned, some of which cover multiple applications. The response rate has, therefore, been reasonable. A random sample of these forms was provided to the external evaluators for analysis, the results of which are detailed below.
		Project monitoring was delayed due to the forms and procedure only being finalised in September 2013.
31/12/2013	Project Finalises	Stuart Grainger and Phil Potter left Woodfuel East in December 2013
31/01/2014	Claim 21 (Final)	Expenditure 1 <sup>st</sup> October 13 - 30 <sup>th</sup> December 13 (at least 10% of total project cost). Submission to Defra by 14 <sup>th</sup> February 2014.
14/02/2014	Final Progress Report	Covering entire implementation period
28/02/2014	WFE Archive completed	Grant project files will be archived at FC Santon Downham and ROD updated accordingly before submission of the final claim to Defra (14/02/14).
		By 28/02/14 all other WFE documents will have

		been archived and stored at Santon Downham. Files can from this date by requested by Defra, RPA, EU staff through the Forest Services at Santon Downham.
31/01/2014	Final Evaluation	Sustainability East's evaluation report submitted to WFE, to accompany final claim.
31/03/2014	WFE Website Closed	By this date the WFE website will be closed and documents and case studies will have been moved to the Woodland For Life website.

## 3. WFE Outputs – forecast and achieved

As required WFE has been using the RDPE Online Database (ROD) for grant administration and for reporting of project outputs at the point of closing the projects once all project activities have been completed and the grant is being claimed.

In addition to this WFE had additional output targets included in the original offer letter from the East of England Development Agency. Since the responsibility for the RDPE programme in the "region" have moved from EEDA to the Defra RDP team in Cambridge a new offer letter has been issued and although these non RDPE outputs are no longer included in the current offer letter we will be required to report on these outputs as they are part of the Business Case that formed part of the FC application for the WFE project.

To be able to record these additional outputs WFE had Geodata Systems of the University of Southampton develop an output database which is linked to the finance package that they had already developed.

Geodata Systems developed ROD and have included a download button in ROD that allows us to download WFE ROD data into our software package. The measure related outputs forecasted and achieved that are reported in ROD therefore do not have to be typed in again.

Table 3 shows the changes that have been made and clarifies the outputs included in this evaluation. Notably, the original EEDA outputs are absent from the final offer letter.

Output	Total by Dece	mber 2013		
Cutput	Offer letter 1, Dec 08	Offer letter 2, Sept 11	Offer letter 3, Nov 12	
EEDA/Defra OUTPUTS				
Jobs created	85			
Number of Businesses Supported	160	128	103	Covered in the RDPE outputs (Measures 121 & 123)
Number of people assisted with skills development	320			Covered in the RDPE outputs
Private Sector Leverage (£)	£6.2m			Covered in the RDPE outputs

#### **Table 3 Woodfuel East Offer Letter Outputs**

Carbon savings	80,000 tonnes			Covered in the FC outputs
Installed heat capacity per year	45 MW	Absent	Absent	No - Prior to EEDAs demise EEDA agreed that
Energy production per year (GWH)	250 GWH	Absent	Absent	this would be not be included due to challenges in measuring this accurately

# **RDPE OUTPUTS**

Measure 111 Vocational Training and information actions for persons engaged in the agricultural, food or forestry sectors					
Number of participants in training	880	800	536		
Number of training days received	1770	1600	880		
Measure 114 Use of advisory service	ces by farmers a	nd forest holders			
Number of farmers supported	245	Absent	Absent		
Number of forest holders supported	490	253	133		
Measure 115 Setting up farm man well as and forest advisory services		elief and farm ad	visory services as		
Number of new management and advisory services	1	1	1		
Measure 121 Modernisation of agric	cultural holdings				
Number of business supported	Absent	32	26		
Total Volume of Investments	Absent	£1,753,119.00	£1,331,687.00		
Measure 122 Improving the econon	nic value of fores	sts			
Number of forest holdings supported under the project	56	15	18		
Total volume of investments	£900,000.00	£377,852.00	£708,990.00		
Measure 123 Adding value to agrice	ultural and forest	ry products			
Number of business supported	Absent	128	77		
Total volume of produce investments	£4,800,000.0 0	£3,891,118.00	£3,122,489.00		
Measure 124 Cooperation for technologies in the agriculture, food	development o and forestry see		processes and		
Number of cooperation initiatives supported	28	Absent	Absent		
Measure 125 Improving and developing the infrastructure related to the development					
Number of supported actions	175	40	26		
Total volume of investments	£1,221,000.0 0	£281,256.00	£848,484.00		
FORESTRY COMMISSION OUTPUTS					
Tonnes of green roundwood to market per annum as woodfuel by 2013110,000					
Carbon savings 80,000 tonnes					
supported     28     Absent     Absent       Measure 125 Improving and developing the infrastructure related to the development and adaptation of agriculture and forestry     Image: Comparison of agriculture and forestry       Number of supported actions     175     40     26       Total volume of investments     £1,221,000.0 0     £281,256.00     £848,484.00       FORESTRY COMMISSION OUTPUTS       Tonnes of green roundwood to market per annum as woodfuel by 2013     110,000					

Unmanaged	Woodland	bought	15,000 ha	
under manag	ement		15,000 11a	

Now that all grant projects have been paid the final outputs achieved against targets by Woodfuel East are shown in Table 4. These are taken from both the ROD and Geodata systems and, where appropriate, combine to give a total figure.

# Table 4 Woodfuel East Outputs Achieved

Output description	Output target (Final Defra offer letter, Nov 12)	WFE Outputs	% of target
EEDA/Defra OUTPUTS			
Jobs Created	85	36	42
RDPE OUTPUTS		•	•
Measure 111 Vocational Training and information actions for perforestry sectors	ersons engaged i	n the agricultu	ral, food or
Number of participants in training	536	591	110
Number of training days received	880	693.5	78
Measure 114 Use of advisory services by farmers and forest hold	ers		
Number of forest holders supported	133	76	57
Measure 115 Setting up farm management, farm relief and farm advisory services	n advisory servi	ces as well as	and forest
Number of new management and advisory services	1	1	100
Measure 121 Modernisation of agricultural holdings			
Number of business supported	26	27	104
Total Volume of Investments	£1,331,687	£1,581,163	119
Measure 122 Improving the economic value of forests			
Number of forest holdings supported under the project	18	30	167
Total volume of investments	£708,990.00	£876,544	123
Measure 123 Adding value to agricultural and forestry products	•		
Number of business supported	77	71	92
Total volume of produce investments	£3,122,489	£2,468,723	79
Measure 125 Improving and developing the infrastructure relat agriculture and forestry	ed to the develo	opment and ac	laptation of
Number of supported actions	26	24	92
Total volume of investments	£848,484	£643,038	76
FORESTRY COMMISSION OUTPUTS			
Additional tonnes of green roundwood to market as woodfuel by 2013	110,000	114,584	104
Carbon savings (tonnes)	80,000	96,823	121
Unmanaged Woodland bought under management (ha)	15,000	9,882.19	66

#### 4 WFE Output Analysis

#### 4.1 EEDA/Defra Outputs:

#### Jobs Created

The number of jobs created was forecast for each WESISP project and included in each WESISP offer letter as outputs. According to the ROD database the Project has led to 31.5 jobs being created, with Geodata recording a further 4.5. The total number of jobs created is therefore 36, which is an underachievement on the original target of 85 jobs.

No statistical information is readily available as to how the original target of 85 jobs was derived. However, data collected by DECC for the RHI impact assessment indicates that every 2000m<sup>3</sup> / green tonnes of wood harvested and processed to wood fuel equates to 1 job. This suggests that the original target of 85 jobs created was overly ambitious and that, based on the additional quantity of roundwood brought to market as a result of Woodfuel East, the creation of 57 jobs would have been a more realistic target.

Even so, Woodfuel East has not achieved the level of job creation that may have been expected over the project period. However, interviews with grant applicants undertaken by the project's external evaluators Sustainability East suggest that the Project's interventions have generated additional work in the woodfuel supply chain, and even though this has not as yet resulted in an increase in directly employed FTE posts, opportunities for *self-employed* contractors have increased. This has been discussed during Woodfuel East Steering Committee meetings as a tangible output, but one that cannot be reported on ROD or Geodata.

Forestry contractors have also reported that the Project has enabled them to become more productive, expand into new markets and grow their businesses at a rate that would have not been possible without Woodfuel East's intervention. Many feel confident that their businesses will continue to grow, that jobs in their business were more secure, and there was an opportunity to create jobs in the future.

The interviews also provided evidence that some forestry roles are far more secure as a result of Woodfuel East's intervention, especially for those 'Woodland Owner' private estates with a history and tradition of employing forestry workers, many of whom were long standing employees. Developing an estate's internal woodfuel supply chain, and in some cases realising commercial opportunities from woodland, had increased the value of estate-based forestry workers. Increased morale and job satisfaction amongst these forestry employees, who felt they were now making a more significant contribution to the efficient running of the estate, was also reported.

In a sector that supports between 725-900 FTE jobs in the East of England, the increase of 36 (4-5%) achieved by Woodfuel East, although less than originally forecast, is still very significant; the overall and long-term impact of Woodfuel East on rural employment in the forestry and wood fuel sectors is therefore more positive than the output figure suggests.

## Installed Heat Capacity and Biomass Energy Production

Woodfuel East funded 5 projects under WEBIG (Woodfuel East Boiler Installation Grant). These were funded under measure 121 (Modernisation of Agricultural Holdings – 1 project); Measure 311 (Diversification into non-agricultural activities – 2 projects); and Measure 313 (Encouragement of tourism activities – 2 projects).

Woodfuel East agreed with EEDA/Defra not to count carbon dioxide equivalent savings for biomass boiler installations to ensure that there is no double counting taking place with project supported under the capital grant scheme. For biomass boiler or WEBIG projects WFE has recorded the installed heat capacity in MW and the annual biomass energy production per year in Giga Watt Hours (GWH). This has been recorded on Geodata database.

Through the WEBIG grants that did proceed, Geodata records that Woodfuel East facilitated an installed heat capacity of 0.74 MW, with a combined annual energy production of 3.15 GWH.

In addition to this, in 2009/2010 Woodfuel East administrated and distributed an additional £50k to support biomass heating in Norfolk. The funding was made available by Norfolk County Council and although this funding cannot be counted as matched funding, it would not have been made available if Woodfuel East had not been in place.

The grant scheme received 23 applications and a total of 17 were supported (including one firewood sawbench). In total, this grant achieved a further installed capacity of 0.473MW.

# 4.2 RDPE Outputs:

# *Measure 111 Vocational Training and information actions for persons engaged in the agricultural, food or forestry sectors:*

The number of participants in training is recorded as the number of individuals who have received training through Woodfuel East. This was either:

- a training course delivered by Woodfuel East
- a training course subsidised by Woodfuel East, or
- training provided by Woodfuel East's Business Development Advisors (BDAs) in face-to-face meetings. Defra had agreed that the time BDAs spent advising applicants during face-to-face meeting could be counted as training. Subsequently, the BDAs recorded their time delivering this type of training which was recoded on Geodata.
- the Geodata total also includes two training courses that took place before ROD was up and running as well as several events that were organised or supported by WFE (staff)

The 'number of training days received' refers to the amount of training days received by all participants. A training day is considered to be an 8-hour day. Where training was provided by the BDAs through face-to-face meetings, this has been calculated on a pro-rata basis.

Woodfuel East subsidised training courses on woodland management, woodland management planning, woodfuel production, and machinery operation. In total 6

training providers ran 25 training courses for 156 participants.

In addition, the Woodfuel East BDA's developed and ran a further training course on 'New Native Woodlands and Wood Fuel' for Woodland Trust Staff, which was attended by 14 participants. A summary of WFE training course provision is given in Table 5

That Woodfuel East exceeded the overall target for the number of people in training is mainly because of the training the BDAs delivered to individual applicants. This was deemed essential to ensure effective uptake of the grant scheme. However, Woodfuel East recorded 28% less training days than the original target, reflecting the level of one-to-one training that effectively took place.

		Number of	
Provider	Course Title	courses	No. Participants
BTS	Agri-Based Tractor and Self-Loading Trailer Training	1	4
MIS Ltd	Purpose built or agricultural based tractor & self loading trailer training	4	8
	Coppicing OCN level 2	3	18
SWA	Small Woodland Management Planning	2	19
	Sustainable Woodland Management	1	5
	Ignite Woodfuel Production and Supply - 3 day (2008)	2	19
RDI	Ignite Woodfuel Production and Supply - 3 day	3	23
	Ignite Managing Woods for Woodfuel	2	18
	Ignite Woodfuel Quality Standards	1	4
	Ignite Firewood Production and Supply	2	14
Tree Worker Training	Firewood Processor Training Course	2	4
UEA	The Silviculture and Management of Woodlands	2	20
WFE	New Native Woodlands and Woodfuel	1	14
		26	170

## Table 5: Summary of WFE Subsidised Training Provision

#### Measure 114 Use of advisory services by farmers and forest holders:

The 'number of forest holders supported' refers to the number of woodland owners who used WFE's advisory services and for who grant for the advisory service was claimed by the service providers. A summary of WFE Advisory Service provision is given in Table 6.

The total number of forest holders supported under this Measure was 76; a shortfall of the projected output target of 133. As documented in previous progress reports Woodfuel East could not meet the initial aspirations for advisory service provision, and the allocated budget was accordingly reduced or re-allocated over the project period.

The main reasons for Woodfuel East's subsidised advisory service underperforming over initial estimates relates to several of the original providers failing to deliver the number of advisory services they had specified; some providers had their contracts terminated for non-delivery as a result. One original provider withdrew from the project and another's business folded and so was therefore not able to deliver. Replacement providers were secured, but caused a significant delay and actual deliveries by the replacements were, again, lower than estimates.

Of interest, however, is that the Advisory Service provision did lead to 6 applications for WESISP projects. Of these 5 were successful; one of which resulted in one of the largest capital grants awarded by Woodfuel East (WESISP 130 Barton Bendish Woodland Infrastructure Project).

Service provider	Advisory Services	First visit reports	2nd visit reports	Total reports	WESISP Grant app's	WESISP Grants awarded
Lockhart Garratt	54	39	15	54	4	3
Tilhill*	0	0	0	0	0	0
FWAG	8	8	0	8	0	0
Smiths Gore** Silvicultural	3	7	0	7	1	1
Systems	4	4	0	4	0	0
EWP	0	0	0	0	0	0
Clive Ellis	5	5	0	5	1	1
CWP	2	2	0	2	0	0
Totals	76	65	15	80	6	5

#### Table 6: Summary of Woodfuel East Advisory Services.

\*None of the WEAS's delivered by Tilhill were claimed for so are not counted.

\*\*5 separate reports were produced during the one WEAS for Albanwise.

# *Measure 115 Setting up farm management, farm relief and farm advisory services as well as and forest advisory services:*

The one new management and advisory service achieved is Woodfuel East's own service.

#### Measure 121 Modernisation of agricultural holdings:

The 'number of business supported' is the recorded number of capital projects funded under this Measure. Woodfuel East exceeded the target by 1, supporting 27 projects under this Measure.

As reported above, support under this Measure is largely linked to storage barns for self supply of woodchip and logs for biomass boilers on private estates. The number of such projects increased in the later period of Woodfuel East, in line with take-up of the Renewable Heat Incentive. Many of these projects came forward after preparation of the last offer letter budget; the total volume of produce investments achieved therefore exceeds the output target set.

#### Measure 122 Improving the economic value of forests:

The number of forest holdings supported under the project refers to the number of individual woodland holdings supported under this Measure. As one grant scheme encompassed two woodland holdings under the same ownership, the 30 holdings actually correlate to 29 actual 'woodland owners' being supported under this Measure.

Woodfuel East exceeded this output target by 67%.

Similar to Measure 121, Woodfuel East a surge of interest in obtaining capital grants under this Measure following implementation of the Renewable Heat Incentive (RHI), largely linked to equipment for self supply of woodchip and logs for biomass boilers on estates, such as forestry forwarding trailers and log grabs; one estate also invested in a wood chipper to become self sufficient in wood chip production for the on-estate woodchip heating system.

Woodfuel East also had a further number of applications for forestry and woodfuel machinery and equipment not linked to on-estate heating schemes, but to enable estate-based commercial forestry and wood fuel opportunities, either for the production of round wood for onward sale, or for the production and processing of a wood fuel end product or products from estate-sourced round wood.

However, as many of these projects were associated with on-estate heating systems and potentially integrated with project investment under Measure 121 and/or Measure 125, they came forward after preparation of the last offer letter budget; the total volume of produce investments achieved therefore also exceeds the output target set.

#### Measure 123 Adding value to agricultural and forestry products

ROD records the final 'Number of *enterprises* supported' by Woodfuel East for Measure 123 as 71, against an output target of 77.

However, some applicants under this Measure were successful in more than one grant application. An analysis of applications and applicants shows that the 71 individual *enterprises* that were supported correlates to 58 micro-enterprises actually in receipt of grant funding through successful grant applications.

The total of volume of investments achieved was less than forecast for this Measure. Several large pipeline projects that were mooted either did not proceed to full application or complete their project; only two of these would between them account for 50% of the final shortfall.

Woodfuel East also received more applications for smaller amounts of grant funding than had originally been anticipated, for small-scale forestry and processing equipment, which better met the actual business models of the forestry and wood fuel micro-enterprises with whom Woodfuel East engaged.

# *Measure 125 Improving and developing the infrastructure related to the development and adaptation of agriculture and forestry*

Woodfuel East supported 25 actions under this Measure, 1 less than the output target of 26.

These projects could generally be categorised into access projects into woodlands providing tracks and/or higher spec roading, stacking areas and timber transfer points; and hard standing projects to facilitate the seasoning of roundwood, undertaken by 'woodland owner' estates as part of the development of an internal woodfuel supply chain.

Woodfuel East dealt with relatively few woodland access/roading projects in the early stages of the project. However the advent of the Forestry Commission's Woodfuel Woodland Improvement Grant (WF WIG) raised interest in these projects generally. As WF WIG was also funded under Measure 125 Woodfuel East, Defra and the Forestry Commission agreed that in the counties of the former East of England Region, applicants for Woodfuel WIG access projects should be referred to Woodfuel East and channelled through the WESISP application process.

Although support for hard standing areas was, in most cases, fairly straightforward, woodland access and roading projects tended towards the complex and bureaucratic, often necessitating the involvement of external agencies (i.e. Forestry Commission, local planning authorities, Highways Agency, Environment Agency etc.) in the application process to ensure that the project complied with all relevant legislation (Town and Country Planning Act, Environmental Impact Assessment (Forestry) Regulations, Water Resources Act, Land Drainage Act).

As well as the above, to be fit for purpose many of the proposals developed into significant civil engineering projects and initial estimates of cost were soon exceeded. For instance, one woodland infrastructure project had an initial estimated cost of  $\pounds70,000$  which, once civil engineers had provided quotations, rose to exceed  $\pounds170,000$ .

Although this particular project did proceed several other pipeline projects did not, and the final total volume of investments achieved is short of target by £205,000. However, it is worth noting that one major project that was withdrawn had indicated total eligible costs of £240,000; if this had proceeded both output targets for this Measure would have been met (or exceeded).

## 4.3 Forestry Commission Outputs

#### Additional green tonnes of timber per annum by December 2013

In addition to the data already recorded through ROD Woodfuel East have been recording milestones for additional green tonnes of timber brought to market per annum for the 5 years RDPE contract period and a separate figure for the additional green tonnes of timber brought to market per annum by Dec 2013. For the first few projects we used separate forecasts for every year, lately we have been using these figures to calculate an average per annum. The additional green tonnes of timber brought to market are included in every WESISP offer letter as outputs.

The additional green tonnes of timber brought to market by Dec 2013 is used to calculate the carbon savings achieved, as well as the area of woodland brought into management.

From the data input, Geodata records that Woodfuel East will have bought an additional 114,584 green tonnes of timber per annum to market by Dec 2013, representing a 4.5% increase on the original target of 110,000.

The additional green tonnes of timber brought to market by Dec 2013, is used to calculate the carbon savings achieved, as well as the area of woodland brought into management, as follows:

#### Carbon savings (CO2eq)

The total additional green tonnes of timber brought to market per annum by Dec 2013, multiplied by 0.845 gives the tonnes Carbon Dioxide (C02eq) saved by displacing oil. This target will be reported by WFE and is not included in the offer letters of projects supported by WFE; it is calculated form the forecast for green tonnes of timber recorded in each offer letter.

The project has assumed throughout that tonnes of  $CO_2$ eq produced per GWh for wood and oil are 5 and 35 respectively (FC ref; Biomass Energy Centre, 2013). The project has also assumed that each tonne of green timber when seasoned to 30% and processed to woodfuel produces 0.00245 GWh of energy and thus 0.012 tonnes of  $CO_2$ eq (i.e. 0.00245 x 5). Using oil for the same energy produces 0.857 tonnes of carbon. This represents a carbon saving of 0.845 tonnes (CO2eq) for each green tonne of timber used as woodfuel to substitute for oil (i.e. 0.857 - 0.012).

Woodfuel East has bought an additional 114,584.00 tonnes of green roundwood to market as woodfuel thus achieving CO<sub>2</sub> savings of 96,823.48 tonnes by displacing oil.

Throughout the project as a means to demonstrate value for money of WESISP projects, WESISP appraisals have compared each project's carbon savings with the central value of the non-traded  $\pounds/tCO2e$  value as provided on the DECC website (i.e.  $\pounds54.10$  for 2013). On this basis, the central value of the Co2 saved by Woodfuel East is  $\pounds5,238,150/year$  at 2013 values.

#### Additional Area of Woodland into Management by Dec 2013

As with the carbon savings per annum this figure is reported by WFE and not included in the offer letters of project supported by WFE.

The area of woodland brought into management was based on the additional tonnes of green timber bought to market and calculated using the assumption, adopted when the mid term evaluation was completed, based on a figure of 28 green tonnes (GT) of timber being harvested per hectare as part of a 10 year thinning cycle of stands in positive management.

However, this methodology was based on accepted forestry conventions for thinning at marginal intensity (i.e. a thinning yield of 70% of a stand's yield class) and assumed the UK average Yield Class 4 for broadleaves and that all additional timber brought to market came from woodland thinning.

Anecdotally and professionally Woodfuel East staff became aware that the first silvicultural operations in previously undermanaged woodland were producing a higher volume of roundwood than conventional thinning models for stands in positive management would dictate (i.e. thinnings were effectively 'catching up' on volume that should already have been harvested and extracted if the woodland had been in regular cyclical management; and local Yield Classes of many of the tree species harvested for wood fuel exceeds YC4). Many silvicultural operations to generate wood fuel were also producing higher volumes by extracting roundwood of poorer grade and/or of smaller diameter that would be otherwise be unmarketable or too uneconomical to recover.

Woodfuel East therefore developed the process of using Forestry Commission felling license information to develop a more accurate way of determining actual volume output, as volumes as felling license applications contain the estimated volume/ha stated by applicants.

The Forestry Commission provided data for felling licence application for East England between April 2009 and March 2013. This showed an average yield per hectare of 46.38 m3/ha (equiv 46.38 green tonnes/ha at felling).

As noted above, Woodfuel East will have bought an additional 114,584 green tonnes of timber per annum. Assuming a four year effective project period this annual additional volume equates to a total additional area of woodland brought into management of 9,882 hectares. (114,584 GT x 4 / 46.48 GT/ha).

As reference, using 28 GT output/ha would equate to a potential 16,369 ha of woodland brought into management; however, the Forestry Commission data provides a sounder statistical evidence base on which to calculate woodland area.

The above helps equate the area of woodland that will actually be *worked* to produce the forecast roundwood output over the contract period; however WESISP has had a further influence on the ongoing positive stewardship of woodlands.

Woodfuel East support to woodland owners was based on woodland management plans and at the level of the holding, i.e. the level of investment had to be commensurate with the size of woodland.

Woodland Owners therefore had to submit a woodland management plan; the plan needed to demonstrate not only that the woodland was or would be managed

sustainably, but also give a good indication of the amount of wood that was likely to be produced over the long term (the Woodfuel assessment Form – basically a production forecast). If no current management plan was in place, Woodfuel East BDA's recommended that applicants adopt the Forestry Commission's Woodland Management Plan template; Forestry Commission funding to prepare management plans was available through the EWGS Woodland Planning Grant.

This process encouraged many woodland owners/estates to actively develop management plans for previously undermanaged woodland, or update existing management plans which were falling behind target as a result of loss of roundwood markets.

Woodfuel East finally approved grant projects from 44 individual woodland owner/estate applicants, and totalling the woodland area of each application it is possible to determine that through engagement with Woodfuel East these projects have contributed to some 7,000 ha of woodland being brought under new (and/or revised) management plans.

## 5. WFE Grant Expenditure

There have been various changes to Woodfuel East's budgets as the project has developed. Following the original funding agreement ("the offer letter") issued in December 2008, a further two revised offer letters (September 2011 and November 2012) where issued by Defra, which superseded each previous offer letter. The difference between the offer letters reflected the changes to spending profile by time and measure as the project progressed. The key changes are summarised below:

- Changes to and reallocation of budget under different measures within Axis 1 of RDPE and/or amalgamation of different budget lines to simplify budgeting
- Increase in grant rate to encourage more uptake
- Changes to the targets and outputs required for the project
- Reduction in training budget due to lower than expected number of training courses
- Reduction in advisory service budget due to lower than expected demand

The final revised offer letter (November 2012) is for a grant of £3,594,389 or 49% of eligible expenditure.

Woodfuel East's claim form to 31/12/2013 records that Woodfuel East have spent, over the project period, a Defra grant of £3,349,477. This figure comprises £2,534,997.15 Capital and £814,479.15 Revenue.

The total Capital grant claimed is inclusive of WESISP projects that have subsequently repaid all or part of their grant awards (either already repaid or currently going through RPA repayment procedure). These repayments have been factored in to the Excel worksheet Woodfuel East have been maintaining to monitor grant expenditure which records a capital grant expenditure for completed and *ongoing* projects of £2,467,312 (see table).

# Table 7: Final capital grant spend for completed and ongoing projects (£)

Measure	111	114	121	122	123	125	311	313	Total
Projects	32,778.81	34,488.00	549,346.76	361,453.61	1,020,286.36	363,370.63	45,349.37	60,238.80	2,467,312.34
Defra Budget	48,127.00	54,792.00	531,952.00	289,680.00	1,230,812.00	509,034.00	45,349.00	60,239.00	2,769,985.00
red is overspend	15,348.19	20,304.00	-17,394.76	-71,773.61	210,525.64	145,663.37	-0.37	0.20	302,672.66

Table 8 shows the final breakdown of grant expenditure based on capital projects claimed, and those complete and ongoing.

	Defra Budget (a)	Expenditure (a) Claim	Variance (a-b)	Expenditure (C) WFE Excel worksheet	Variance (a-c)
Capital Grant	£2,769,985	£2,534,997	£234,988	£2,467,312	£302,673
Revenue Grant	£ 824,854	£ 814,479	£ 10,375	£ 814,479	£ 10,375
Total Grant	£3,594,839	£3,348,476	£245,363	£3,281,803	£313,048

Based on a Woodfuel East total claimed grant spend of £3,348,476, Woodfuel East has under spent by £245,363.

If capital grant repayments are factored in, Woodfuel East will have committed a total Defra grant of  $\pounds$ 3,281,803. This is  $\pounds$ 313,048 less than the grant amount offered by Defra in the final offer letter.

Whichever total figure is considered, the under spend is largely in capital expenditure and as a result of a number of projects that were in pipeline at the time of the last budget negotiation, and which subsequently did not proceed i.e. delayed or cancelled; or did not commit to all their originally agreed funding. Defra also reduced the maximum permissible grant intervention for Measure 125 from 60% to 40%; this had an impact of reducing grant spend on several of the last estate-based infrastructure projects.

Woodfuel East's excel spreadsheet also records a list of projects which were not taken forward, had been rejected or have been withdrawn in 2013; the grant funding involved in budgeting for these projects is considerable at £956,000.

As Table 9 shows, the total eligible cost of Woodfuel East is  $\pounds$ 6,865,780 (based on capital expenditure of ongoing projects at  $\pounds$ 5,925,138 against  $\pounds$ 6,165,390 of the claim total – see above). Woodfuel East has therefore secured  $\pounds$ 3,583,977 of private sector investment, which is less than budgeted due to reduced spending overall. However, Woodfuel East achieved a slightly lower grant intervention rate than outlined budgeted – 47.6% as opposed to 49%.

This is due to the final costs of a number of projects being higher than the quotes on which grant offers were based. These increased costs were deemed as the projects' final eligible costs, as required by EEDA/Defra to ensure that evidence of expenditure and defrayal (i.e. the receipts/invoices and bank statements) corresponded with the amounts used in WESISP grant claim forms. In these instances, because the original grant offer was not increased, the grant intervention rate was effectively reduced.

	Defra Budget	Actual
Eligible Costs (Capital)	£6,419,153.00	£5,925,138
Eligible Costs (Revenue)	£954,189.00	£940,642
Total Eligible Costs	£7,373,342.00	£6,865,780
Grant	£3,594,839.00	£3,281,803
% Grant to Eligible Costs	49.00%	47.8%
Match funding	£3,778,503.00	£3,583,977

# Table 9: Eligible Costs

#### 5.1 Analysis of Capital Grant Expenditure against Measures

Three systems have been operating in parallel which record Woodfuel East capital grant spend; Defra's RDPE online database, Woodfuel East's claims to Defra, and Woodfuel East's own Excel spreadsheet. Comparison of grant expenditure against Measure between the claim forms, Excel spreadsheet and ROD shows some differences in totals. Using ROD as the benchmark, these are analysed below:

#### Measures 111 and 114

#### Table 10: Measure 111 Total expenditure

Final Claim (Page 5)	ROD 31/01/2014	Woodfuel East Excel worksheet
£ 26,705.08	£27,101.58	£32,778.81

The main variance for this measure is £6073 between Woodfuel East's spreadsheet and the final claim form. This is largely accounted for by funding for two Rural Development Initiative 'Ignite' training courses from September/October 2008, totalling £5,677.23. This was claimed by Woodfuel East in our first claim to EEDA for the period 6/08/2008 – 31/12/2008, but has never been carried forward to the ongoing running total when the claim form was revised. This claim was also pre-ROD so this £5,677.23 is also absent from ROD.

Once this £5,677.23 is factored in the remaining variance between ROD and the final claim form shows that Woodfuel East have under-claimed £396.50 against expenditure for Measure 111

## Table 11: Measure 114 Total expenditure

Final Claim (Page 5)	ROD 31/01/2014	Woodfuel East Excel worksheet
£ 34,884.50	34,488.00	£34,488.00

There is no variance between Woodfuel East's Excel worksheet and ROD, however there is a variance between ROD and the final claim which shows that Woodfuel East have over-claimed £396.50 against expenditure for Measure 114.

As the variances for Measures 111 and 114 cancel each other out, there will have been a transcription error between the two Measures which has not been identified in previous claim processes.

#### Measure 121 and 122

#### Table 12: Measure 121 Total expenditure

Final Claim (Page 5)	ROD 31/01/2014	Woodfuel East Excel worksheet
£ 556,715.19	549,347.16	£549,346.76

There is a negligible variance of £0.40 between Woodfuel East and ROD, most likely from compounded rounding differences between the systems.

However, there is a rounded variance of  $\pounds7368$  between ROD and the final claim, showing that Woodfuel East have over-claimed  $\pounds7,368$  against the ROD total for Measure 121.

#### Table 13: Measure 122 Total expenditure

Final Claim (Page 5)	ROD 31/01/2014	Woodfuel East Excel worksheet
£ 366,465.18	£373,833.21	£361,453.61

Between the totals there are small variances in pence, these are negligible and as above most likely from compounded rounding differences between the systems.

There is a variance of £12,380 showing between ROD and Woodfuel East's Excel worksheet. The £12,380 is accounted for by the repayment of £12,380 from WESISP 145 currently under process.

This has already been removed from Woodfuel East's spreadsheet, but is still showing on ROD and, as it formed part of a previous claim, on the final claim form.

This accounted for, there is a remaining variance between the final claim and ROD, showing that Woodfuel East have under-claimed £7368 against the ROD total for Measure 122.

As the variances for Measures 121 and 122 therefore cancel each other out, there will again have been a transcription error between the two Measures which has not been identified in previous claim processes.

#### Measure 123

#### Table 14: Measure 123 Total expenditure

Final Claim (Page 5)	ROD 31/01/2014	Woodfuel East Excel worksheet
£ 1,081,268.38	£ 1,051,188.36	£1,020,286.36

Between the totals there are small variances in pence, these are negligible and as above most likely from compounded rounding differences between the systems.

The remaining variances between the totals are here accounted for by previous and ongoing repayment of grant.

There are three repayments which are pertinent: WESISP 010 Even Forestry 2: £30,080 WESISP 082 Treewood Harvesting: £18,000 WESISP 133 Small Scale and Low-impact harvesting: £12,920

WESISP 010 Even Forestry 2 has completed the repayment process and the grant paid has been removed from ROD. This therefore accounts for the variance between the final claim and ROD ( $\pounds$  1,081,268 -  $\pounds$  1,051,188 =  $\pounds$ 30,080).

The other repayments are still undergoing repayment process to the RPA, and so their grants are still incorporated in the ROD total. The total variance between ROD and Woodfuel East's Excel worksheet is £30,902; the repayments total £30,920. There is therefore a variance of £18 unaccounted for; this represents such a small percentage of the total that it, too, is likely the result of compounded rounding differences.

#### Measure 125

#### Table 15: Measure 125 Total expenditure

Final Claim (Page 5)	ROD 31/01/2014	Woodfuel East Excel worksheet
£ 363,370.65	£ 363,370.63	£363,370.65

There is effectively no variance, aside for £0.02 (rounding).

#### Measure 311

#### Table 14: Measure 311 Total expenditure

Final Claim (Page 5)	ROD 31/01/2014	Woodfuel East Excel worksheet
£ 45,349.37	£ 45,349.37	£ 45,349.37

There is no variance between the systems.

## Measure 313

#### Table 16: Measure 313 Total expenditure

Final Claim (Page 5)	ROD 31/01/2014	Woodfuel East Excel worksheet
£ 60,283.80	£ 60,283.80	£ 60,283.80

There is no variance between the systems.

# 5.2 Analysis of Final Capital Grant Expenditure against Claim.

The total capital grant expenditure recorded by Woodfuel East's spreadsheet is **£2,467,312.34** for approved projects that are closed and *ongoing* (i.e. have not requested to repay all of their grant).

The final claim form to Defra shows a total capital grant claim of  $\pounds 2,534,997.15$ . As identified above this includes grant payments which have subsequently been repaid, totalling  $\pounds 73,379$ . The claim total does *not* include funding for the two Rural Development Initiative 'Ignite' training courses from September/October 2008, totalling  $\pounds 5,677.23$ .

Once these are factored in; the capital grant amount actually paid by Defra will be  $\pounds 2,467,295.38$ ;  $\pounds 16.96$  less than Woodfuel East's calculated grant expenditure total; i.e. well within what could be expected of rounding parameters over the total spend. This demonstrates how diligent and accurate Woodfuel East's accountancy and grant spend monitoring procedures have been.

# 5.3 Capital Expenditure: Who, What, Where

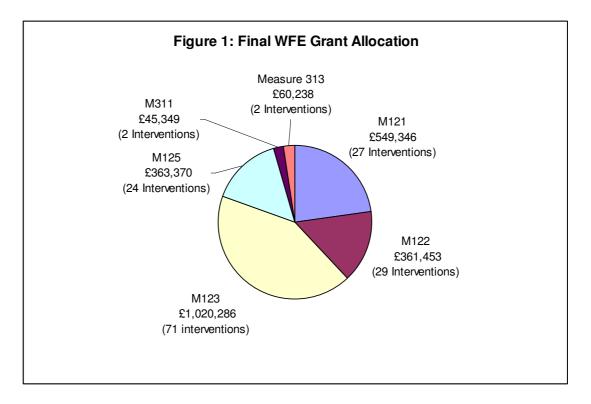
In committing **£2,467,312.34** capital grant expenditure, Woodfuel East has delivered 120 completed capital projects (115 WESISP and 5 WEBIG boiler projects) out of a total of 204 applications received that progressed past an initial expression of interest and at least to Concept stage (at which point projects were given a WESISP project reference).

Woodfuel East split WESISP applications into two broad types; 'Woodland Owner' and Micro-enterprise applications. Woodland Owner applications were funded under measures 121, 122 and 125; Micro-enterprise applications under Measure 123.

In practise, some grant beneficiaries undertook multiple projects, some also applied for one project as a 'Woodland Owner', and a second as a Micro enterprise.

Woodfuel East therefore had 102 individual grant applicants; 56 were Microenterprises, 40 were Woodland Owners, 3 could qualify as both. WEBIG expanded the application criteria for support under WEBIG Axis 3 grants – to include either farm household or tourism applicants. Of the 5 WEBIG applicants 1 has been absorbed into the Micro-enterprise category; one was a later applicant for WESISP under the Woodland Owner category; 2 are tourism related, the remaining one is a farm household. Analysis undertaken by Woodfuel East has ensured that these have not been double counted.

The final WFE total capital grant allocation is extrapolated against funding Measure (by intervention number and grant spend) in Figure 1 below:



For the mid-term review of Woodfuel East Edwin van Ek reported that the majority of applications *by number* had come from Micro-enterprises; Figure 1 confirms that this is still the case at the end of Woodfuel East's programme with 71 interventions under Measure 123.

Grant spend under Measure 123 totals £1,020,286. However, analysis of the final grant spend shows that the combined spend for the Woodland Owner Measures (121, 122 and 125) to be £1,274,121. This largely reflects the nature of the applications; many Micro-enterprise applications were for smaller items of equipment which were relatively inexpensive compared with the building and infrastructure elements frequently associated with Woodland Owner applications.

The capital grants have contributed to the acquisition of a range of forestry and woodfuel equipment and infrastructure; this was analysed and categorised by Sid

Cooper and Phil Potter for WFE's last Steering Committee meeting on 4<sup>th</sup> December 2013; and presented as Table 17.

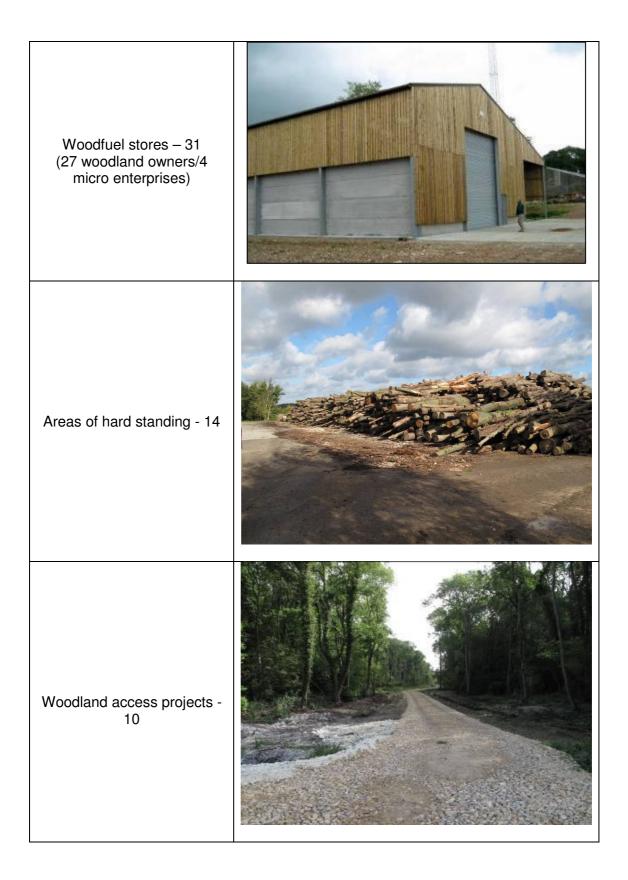
Fuelwood Chippers: 3	
Log grabs:15	
Fuelwood log processors: 33	

# Table 17: What have WFE funded? Items of equipment etc – extract from presentation to WFE Steering Committee 4/12/13.

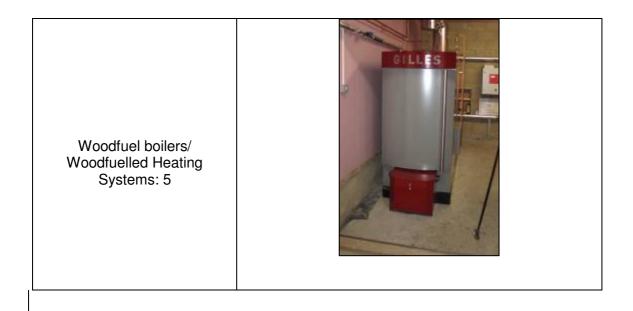




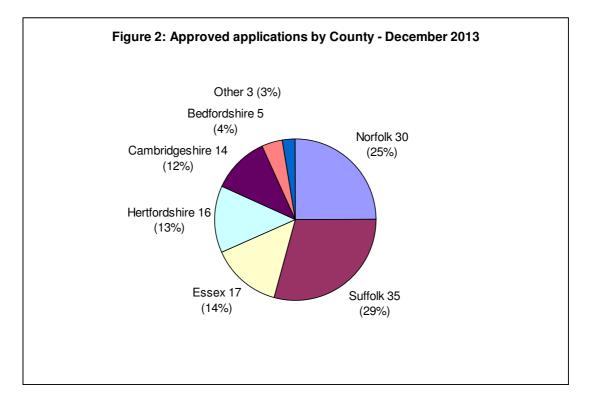


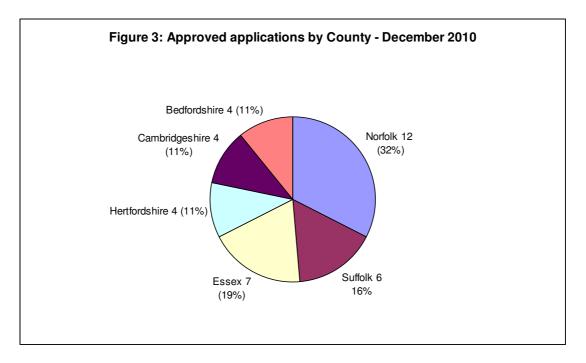






There has been a good geographical spread of applications, as shown in Figure 2 below. Also included for comparison is the analysis completed for the mid-term review (Figure 3). The demand for Woodfuel East grant to some extent echoes the geographical distribution of woodland within Woodfuel East's area with Norfolk and Suffolk at the top of both categories, although this does not explain why Cambridgeshire exceeds Bedfordshire – this is mainly due to one Cambridgeshire Micro-enterprise submitting multiple applications.





The 'other' counties recorded in Figure 2 reflect the later expansion of Woodfuel East's operating boundaries, allowing funding of projects in Derbyshire, Leicestershire and Buckinghamshire.

As stated earlier, in 2009/2010 Woodfuel East also administrated and distributed an additional £50k to support biomass boilers in Norfolk. The funding was made available by Norfolk County Council and although this funding cannot be counted as matched funding, it would not have been made available if Woodfuel East had not been in place. The grant scheme received 23 applications and a total of 17 were supported (including one firewood sawbench). This achieved an additional total installed capacity of 473kW (60% using wood pellets and 40% logs). By displacing fossil fuels these installations will result in an annual saving of a CO2eq of 104 tonnes per annum. The match funding from the private sector was £65k.

# 6. Project Monitoring and Evaluation

The tender for the independent external evaluation of Woodfuel East was awarded to Sustainablility East. This external evaluation report is now completed and will be submitted to support the final claim to Defra.

WFE staff have met with Dr Chrissie Pepper and David Ward of Sustainability East to provide information during the writing of the report, in particular output data prepared by both Edwin van Ek and Sid Cooper. Sustainability East also selected a number of grant applicants for interview (for successful projects and for projects which did not complete/proceed). WFE contacted the chosen applicants to gain consent to pass contact details to Sustainability East. All the necessary interviews were completed and the findings are included in the report.

Woodfuel East also undertook an evaluation and monitoring exercise. It was originally intended that this would be carried out earlier and as an ongoing exercise through the project timescale; however BDA workload priority was given to processing WESISP applications, administering claims and undertaking site inspections; so monitoring and evaluation was delayed.

Woodfuel East monitoring and evaluation reports were completed in September 2013; all applicants were either sent evaluation and monitoring forms to complete and return, or the evaluation and monitoring reporting was undertaken simultaneously with 'Once in a Lifetime' inspections for outstanding grant claims. For these projects the monitoring exercise was flawed as the projects had only just started to deliver outputs; monitoring could only duplicate the forecasts of the offer letter. The return of monitoring reports was sproadic; these were sent out at a time when Woodfuel East staff were leaving, or preparing to leave, the project and there was no staff resource available to chase outstanding forms. It has not therefore been possible to fully update Geodata with actual outputs achieved.

The return of evaluation forms was more successful at roughly 50% completed and received. A random number of these taken for analysis, comprising a sample of 15% of the beneficiaries of the Woodfuel East project.

The questionnaire included a mixture of multiple choice, rating scale and open ended questions. The survey covered all stages of the Woodfuel East including finding out about Woodfuel East, making an application, the issuing of the grant, making a claim and overall satisfaction with the project. Open-ended questions were used to capture any other feedback, including the impact of the projects. The findings of the completed forms are as follows:

The most common way respondents found out about the Woodfuel East project was by 'word of mouth' followed by the presence of Woodfuel East at events. Several grant recipients were alerted to the project by Woodland Agents and forestry consultants. Several respondents believed that Woodfuel East could have been promoted more widely having only heard about the project as it was nearing completion.

All respondents rated the support they received from Woodfuel East when developing their application for grant funding as either good (6%) or very good (94%). Indeed, many highlighted the high quality support and advice they had received from the Woodfuel East Business Development Advisors.

Around three quarters of respondents found gaining access to finance to match their grant application relatively straightforward. Many had self-funded, or were able to utilise their existing business banking arrangements. Also, for these respondents the payment of the grant in arrears did not present a significant challenge –

"...fortunately, we had the buffer of personal finance so this did not present a problem to us" (Grant Recipient).

However, the remaining respondents commented that as a small / micro business obtaining finance was more difficult in the current economic climate, also that the payment of the grant in arrears had led to cash flow problems.

"finding 100% of the funding, plus Vat at 20%, upfront while continuing to work as a contractor involved a fair amount of negotiation; cash flow was a real problem for us" (Grant Recipient)

There was general agreement that the application process was complicated, bureaucratic and time consuming. Many found the forms to be overly complex and inflexible, and the amount of information required to be onerous and repetitive. However, the support provided by the Woodfuel East team enabled applicants to overcome these barriers. "The application process was hugely bureaucratic and time consuming but overall it was fine, but only because Woodfuel East supported us throughout" (Grant Recipient)

All respondents said that the issuing of their grant contract ran smoothly and no problems were reported. Similarly, respondents displayed high levels of satisfaction with the service and support their received during the claims process.

Overall respondents the respondents rated the whole Woodfuel East service as either 'good' (20%) or very 'good' (80%). This was mainly because of the quality of support and advice provided by the Woodfuel East team. Suggested improvements to the scheme included reducing paperwork and amount of information required and simplifying the application forms. There were also several requests to extend and expand the scheme in terms length as well as the ability to fund a wider variety of equipment (i.e. tractors to pull forwarders) and maintain the equipment.

All respondents reported that Woodfuel East had enabled them to grow their business quicker than if they had not received the support; and many commented that their involvement with Woodfuel East had enabled them to make more effective business decisions. A significant number of respondents commented that the project would not have gone ahead without grant funding from Woodfuel East.

"Because of Woodfuel East we have bought unmanaged woodland into management, achieved an income from firewood and provided employment opportunities" (Grant Recipient)

"We've been able to produce firewood more efficiently with new machinery, improve the quality and increase production" (Grant Recipient)

"We would still be considering way forward, now we're up and running" (Grant Recipient)

Finally, respondents discussed the additional impacts of their Woodfuel East funded project. These included creating work for local foresters, builders and contractors, an increased ability to take advantages of other relevant schemes and grants and new collaborations and partnerships. Others felt it too soon to gauge the full impacts of their projects.

In conclusion, the results of the survey confirm that the project has supported growth in the woodfuel economy in the region in terms of job creation and increased business turnover. It has also bought previously management woodland into management. Despite the perceptions that the process for obtaining grant funding was overly bureaucratic and time-consuming, this does not seem to have deterred enthusiasm and support for the Woodfuel East project. This was mainly due to the quality of support and advice provided by the Woodfuel East team. Also, that the projects have successfully delivered against their original objectives (e.g. machinery working effectively and efficiently and delivery increased production).

#### 7. Future opportunities and lessons learnt

There are a number of key lessons learnt from the Woodfuel East project that it is hoped might be applied to new projects emerging from the next round of RDPE from 2014 development of the next round of the RDPE representing Forestry Commission England.

The Woodfuel Strategy for England (Forestry Commission 2007) foresaw a need for public sector support to the woodfuel sector over a 25 year period, peaking at year 9/10 and declining markedly thereafter. The Woodfuel East project was designed for a 5 year period, constrained by the RDPE period 2007 – 2013.

Woodfuel East built momentum for grant delivery during the project period, many potential grant schemes came forward relatively late; especially those which had been on hold pending the introduction of the Renewable Heat Incentive. There is therefore still a demand for capital support for the forestry and wood fuel sectors, but now that the Woodfuel East has closed there is concern about future capital funding.

It is therefore encouraging that interim capital support for the forestry (and wood fuel) sector is currently available through the third round of Defra's Farming and Forestry Improvement Scheme (FFIS). This round of FFIS is only open until April 2014; It is therefore important that any successor schemes under the new RDPE round (i.e. the Farming and Forestry Productivity Scheme) be introduced as soon as practicable, to maintain this interest.

It is vitally important that the availability of this and future grants is widely publicised and if necessary directly targeted to a forestry/woodfuel audience to ensure engagement. Despite the efforts Woodfuel East made with publicity in the form of articles, radio, event and show attendance etc the most common way respondents found out about the Woodfuel East project was by 'word of mouth'. Woodfuel East benefitted in this regard by working with a Steering Committee who brought with them their own network of contacts; such networks should be maintained as essential for the publicity of a centrally delivered scheme.

It was suggested in Woodfuel East's mid-term review that projects emerging through the new round of RDPE post 2013 should not start from scratch but use existing processes and forms and develop these further centrally before rolling out the administration, to speed up delivery and reduce duplication. Wherever possible bureaucracy should be reduced and the application process simplified.

WFE spent time developing bespoke processes and forms which were 'fit for purpose' for what was then a project confined to an administrative Region; this led to confusion from cross-border applicants using consultants (particularly for WEBIG applications).

Since the dissolution of the Regional Development Agencies grant delivery has been administered centrally by Defra; this has led to standard forms and application processes (for instance with the Farming and Forestry Improvement Scheme – FFIS). This is likely to develop further in the proposed 'digital by default' CAP delivery system.

However, a great strength of Woodfuel East was the facilitation support that BDA's were able to give grant applicants and, as evidenced by the evaluation reports, an effective facilitation service will be critical to channelling future investment into the forestry and woodfuel sectors. Without the support of the Woodfuel East BDAs many applicants would have struggled to complete their project. Furthermore, there has to date been a relatively low level of uptake of previous rounds of the FFIS from the forestry sector. This suggests that the forestry sector requires continuing support to capitalise on future investment opportunities.

#### 8. Conclusions

Woodfuel East was originally set up as a regional Wood Fuel Initiative for the East of England, supported under the Rural Development Programme for England (RDPE) by the then East of England Development Agency (EEDA - subsequently Defra) and the EU with additional support from the Forestry Commission. Approval for the project was given in August 2008 and the first applications were invited in December of that year. The project was fully staffed by April 2009. The project concluded on 31<sup>st</sup> December 2013.

Woodfuel East has supported the production and use of locally produced timber from existing undermanaged or unmanaged woodland to be processed into woodfuel.

The initial aims of Woodfuel East were to bring an additional 110,000 green tonnes of roundwood to market per annum as woodfuel, bringing 15,000 ha of undermanaged woodland into management. This would achieve carbon savings of 80,000 tonnes of carbon dioxide (CO2e).

Woodfuel East set about meeting the project's aims and objectives by:

- Raising awareness
- Giving help and advice (i.e subsidised advisory services available for woodland owners)
- Organising training and support training organised by others
- Linking supply and demand ( a market place facility for timber was made available on our website)
- Providing a searchable database on the website for service providers
- Providing strategic investment support (Grants)

Throughout the project period, a number of changes to the *modus operandi* of Woodfuel East have been required. Aside from the requirement to vary budgets and funds between Measures, the key elements have been to support the woodfuel log market, the decision to support the installation of woodfuel boilers prior to the introduction of the RHI, and the expansion of operation outside the boundaries of the former East of England administrative region. These changes have been key to the final delivery of Woodfuel East's objectives, and the flexibility firstly of EEDA and latterly of Defra in facilitating this development is appreciated.

There have been a series of demanding challenges placed on the project with by far the most significant being the level of administrative bureaucracy placed on the Woodfuel East team as a result of RPA and EEDA/Defra requirements. These were not anticipated at the project's outset and have compromised delivery of some elements of the programme.

However, the final achievements of Woodfuel East are notable:

Woodfuel East has spent a Defra grant of £3,281,803 (capital and revenue) and secured £3,583,977 of private sector investment.

For £2,467,312.34 capital grant expenditure, Woodfuel East has delivered 120 completed grant projects (115 WESISP and 5 WEBIG boiler projects)

Against the initial project aims Woodfuel East has:

- Brought an additional 114,584 green tonnes of timber to market annually as woodfuel
- Brought 9882 ha of unmanaged / undermanaged woodland into positive management
- Achieved CO<sub>2</sub> savings of 96,823.48 tonnes per year by displacing oil

Woodfuel East has also:

- Helped to create 36 jobs (FTE equivalent), with the potential for further job creation as completed capital projects progress
- Delivered 26 formal training courses
- Delivered 76 advisory services to woodland owners

Other notable successes include the business support provided to microenterprises and the ongoing encouragement provided to these businesses and Woodland Owners. Feedback from applicants through evaluation reports attests to the high regard with which Woodfuel East is held within the sector. Woodfuel East has helped to demonstrate the forestry and woodfuel sector's ability to provide positive impacts for woodland management, the abatement of carbon emissions and growth in the rural economy. As these areas continue to have a supportive policy context it is hoped that the successes of Woodfuel East and the lessons learnt in delivering the project will be will be noted and carried forward into future funding Programmes, such as the Farming and Forestry Productivity Scheme.

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