



# Quarterly Meeting December 2017

# Agenda

- |                     |   |
|---------------------|---|
| 10.00 am – 10.05 am | Welcome and Introduction – Andy Hill, Chair WRA   |
| 10.05 am – 10.15 am | WRA Board Update and Budget for 2018 - Andy Hill  |
| 10.15 am – 10.30 am | WRA Activity Update - Julia Turner & Gayle Whittaker  |
| 10.30 am – 10.50 am | WRA Technical Update & Q&A – Vicki Hughes   |
| 10.50 am - 11.10 am | Coffee Break/Networking in Exhibition Area  |
| 11.10 am – 11.40 am | Update from HSE, including Q&A – Tim Johnson  |
| 11.40 am - 12.10 pm | Overview of UK Biomass Market, including Q&A – Richard Coulson, RWE   |
| 12.10 pm – 12.25 pm | Overview of Energy and Environmental Chemistry Services for the Waste Wood Sector – Jim Clay and George Bradley Socotec |
| 12.25 pm – 12.30 pm | Any Oher Business and Close of Meeting  |
| 12.30 pm – 1.00 pm  | Lunch followed by Site Tour of Socotec  |

# Welcome – New Members and Guests

| Company             | Name                          |
|---------------------|-------------------------------|
| Alan Hadley Ltd     | Tony Harper                   |
| Doyle Machinery     | Willie Doyle                  |
| E.ON                | Simon Render, David Sanderson |
| Freeland Scientific | Eric Crouch                   |
| Glennmont           | Chris Black                   |
| HSE                 | Tim Johnson                   |
| Savills             | Tim Mockridge                 |
| Steel Viper         | David Harper, Frank Conlin    |
| Wastewise           | James Landau and Bob Wilkes   |

# Update from the Board Meeting

- Richard Coulson from RWE – new Deputy Chair
- Thanks to Clem for his excellent support
- Debtors down significantly
- 2016 Statistics
  - Need to ensure get returns from everyone for 2017
  - 2016 figures looking like 3.6 mil tonnes processed (1.4 mil to recycling including panel board, animal bedding and other, 1.6 mil to biomass, 600 k exported)
- 2017 – Actual v Budget – ahead on P&L
- 2018 Budget agreed in principle
  - Small surplus but will need additional support for FPP, WWC and COP

# ED Update

Julia Turner

# WRA ED Activity Update

- Targeting more new members – up to 104
- FPP Waste Wood Template
- Waste Wood Classification
- BSL Guidance
- Code of Practice – Project Charter and discussions with ABDA
- Stakeholder Engagement - Defra, EA, HSE, NAWDO, LARAC, WRAP, BSL, ESA, BAV, WISH, CIWM
- Presented to South Wales Local Authorities, North West CIWM/LARAC Conference and CIBE

# Communications Update

Gayle Whittaker

# Communications Update

- Media coverage since Oct - 14 general articles
  - David Laing retiring
  - Waste Wood Classification - working with EA & publication of RPS
  - FFP template update
- Commissioned to write
  - MRW handbook
  - Biomass growth needs wood recyclers
  - Skip Hire - look to 2018
  - UROC Journal Dec/Jan - WWC
  - MRW Feb issue - complete round-up of changes in sector
- Winter magazine
- Created a promotional advert
- Launched Linked In profile
- **Follow us on Twitter and Linked In!**

# WRA promotional advert



**wra** Wood Recyclers Association

**Are you a member of the Wood Recyclers' Association?**

Providing a voice for wood recyclers & reprocessors

- Influencing legislation and regulation
- Raising industry standards
- Promoting the sector at home and overseas
- Providing networking opportunities

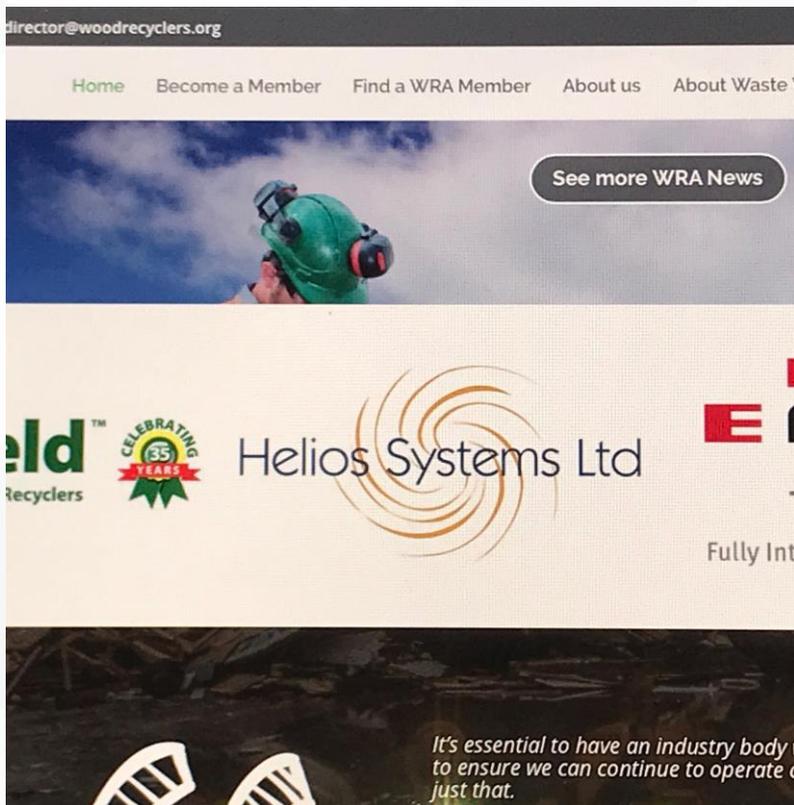
0330 325 0490 | [www.woodrecyclers.org](http://www.woodrecyclers.org)

# Website Stats

- Launched in June
- Over 12,000 hits
- Highest number was November with 2,621 views
- Most frequently visited pages are home, members and news

# WRA Website - your opportunity

- Advertising
- Member of the month



# Technical Committee Update

Vicki Hughes

# Technical Update

- Fire Prevention Plans
- Waste Wood Classification
- Fines disposal
- Hazardous reporting
- Charging Review Consultation

# Fire Prevention Plans (FPP)

# Concerns with FPP

- ‘One size’ does NOT fit all
- Some elements of FPP are unworkable for the wood sector (and others)
- Will put perfectly good companies out of business
  - *Stack heights*
  - *Separation distances*
  - *Wood storage times*
- The creation of the FPP requirements has been led by the EA and not the Fire Service (i.e. the experts)!

# Where we are now

- Recent changes at the EA has led to some very disappointing feedback on our template
- Back to square 1 after 9 months of constructive work!
- No practical consideration of life in the real world of wood recycling
- However, focus still very much on working collaboratively
- Waiting for confirmation of who we will be working with at the EA
- Aim still to produce a template which helps our industry to gain approval for FPPs

# Waste Wood Classification

# Waste Wood Classification

- Initial EA proposal for Interim RPS of 1% of mixed waste wood loads being consigned as 'potentially hazardous' not acceptable
- Un-intended consequences:
  - 40% of waste wood generated by HWRCs – additional separation will mean significant costs
  - National recycling rates could fall by 2-6% per annum
  - Could encourage disposal via unauthorised routes
  - Limited disposal routes for hazardous waste wood in England and none in Wales
  - Two major customers unable to accept mixed waste wood (Panel Board and Energy)
  - Undermine investment in Biomass facilities (existing and planned)

# Implications for Local Authorities

- No proof of mixed waste wood loads, all could be classified as hazardous
- HWRCs will need to segregate according to sub-type
- Only routes for mixed waste wood loads are Panel Board and Biomass
- HWRCs would have to be licensed to handle hazardous waste
- Recycling rates would drop dramatically
- Part B Permits for RHI facilities may need to change – inconsistent with EA permits

# But there is good news...

The WRA led a co-ordinated industry response and wrote to the EA



Ms Nicky Cunningham  
Deputy Director Waste Regulation  
Environment Agency  
Manley House  
Kestrel Way  
Exeter  
EX2 7LQ

Tuesday 15<sup>th</sup> August 2017

Dear Nicky

**Ref. Waste Wood Classification – Proposed Interim Regulatory Positioning Statement**

# Our Position

1. Need a definition of hazardous wood
2. Small diminutive amounts of hazardous waste wood will always be present
3. Wood treatments which produce a hazardous outcome are reducing
4. Grade D – should be excluded & if found **reported**
5. Non-IED Chapter IV (non-WID) Compliant Boilers should only take pre-consumer waste wood not post-consumer Waste Wood including Grade A
6. Work with the regulators to reach an evidence based solution

# Waste Wood Classification

Following actions agreed:

- Code of practice - next 10-12 months
- Recommendations on wood types for:
  - Clean, untreated
  - treated non-hazardous
  - treated hazardous
- Evidence of treated wood products and wood treatments being reviewed with WPA, BCF and PCA
- Agreement on
  - what the contaminants are
  - acceptable levels
  - what new testing needs to be undertaken
- Processors to report hazardous waste wood rejected at site level
- Interim regulatory position from EA
- Potential size of the problem established

# Waste Wood Classification

## Where are we now?

Current situation will continue

Waste wood industry group carrying out further analysis and assessment

An interim RPS has been developed by the EA to ensure:

1. Clearly identifiable clean untreated waste wood is only suitable for animal bedding or non-WID boilers
2. Mixed waste wood must only go to Chapter IV IED compliant boilers or panel board manufacturing
3. A WM3 precautionary hazardous waste classification and associated consignment requirements will apply to mixed waste wood loads in any other situation

# Fines

- Questions asked:
  - How much fines material is currently produced?
  - Where is it going now?
  - Are the outlets permitted?
  - What paperwork is produced?
- What next?
  - Testing – stage of process ?
  - What tests?
  - Costs involved?

# Hazardous reporting

- Existing reporting process
  - All Haz wood received must be reported to:
    - Owner of waste immediately
    - And the EA within 24 hours.
  - Owner must consign the Haz wood and decide either:
    - Collect it with 24 hours
    - Ask for the reprocessor to dispose and pay the cost
    - Ask for it to be reloaded
  - All of the options must be as a Hazardous consignment and reported by both parties to the EA.

# Charging Review Consultation

- Document has been delayed in its release which has resulted in the consultation period falling over the Christmas holiday period
- Joining forces with other trade associations to ask for more time to respond
- Far reaching and complex consultation, touching on all facets of the resource management industry
- Could impact directly on a wide number of our members so want time to get your views
- See <https://consult.environment-agency.gov.uk/engagement/environmentagency-charging-proposals-fromapril2018>

# Woodworking - moving industry forward

Tim Johnson Woodworking  
sector

# Covering

- Wood Safety Group
- Formulating a common strategy



# The Wood Safety Group (WSG)

- Wide cross section of industry trade associations
- HSE facilitator to help effect industry led change

# Common strategy -Why ?

- Part Of GB Work Well
- Industry has a poor ill health record
- Common problems – common solutions
- Practicable workable industry written Guidance
- Long term sustained change
- Commercial advantage ?

# Industry strategy

- Dust
- Noise
- Transport
- Manual Handling

# Stages

- Benchmarking
- Target setting
- Implementation
- Measuring effect
- Conclusions

# Benchmarking

- Measurable over time
- Indicative over time of change +ve or –ve
- Easily gathered
- Consistent over time
- Anonymous

# TARGET SETTING

Target needs to be :

- Specific to the risk being controlled
- Realistic
- Measurable benefit

# Implementation – communication

Plan for implementation incorporating timelines for :

- Initial launch
- information gathering
- Publicity
- Interim review(s)
- Gathering of results
- Dissemination of conclusions

- Workshops
- Case studies
- Case study awards

# Measuring effect

- Change in measurables
- Uptake of publicity
- Questionnaire return pre and post strategy
- Enquiries to trade organisations

# Conclusions

- Published and available on websites
- Trade publications
- Presentations to major trade organisations at events
- HSE website
- Guidance ?

END

Questions ?

**Overview & Discussion  
UK Biomass Market  
December 2017**

# Agenda

- Overview UK biomass market
- The role waste wood plays
- Waste wood market scenarios
- Waste wood market risks and opportunities
- Discussion

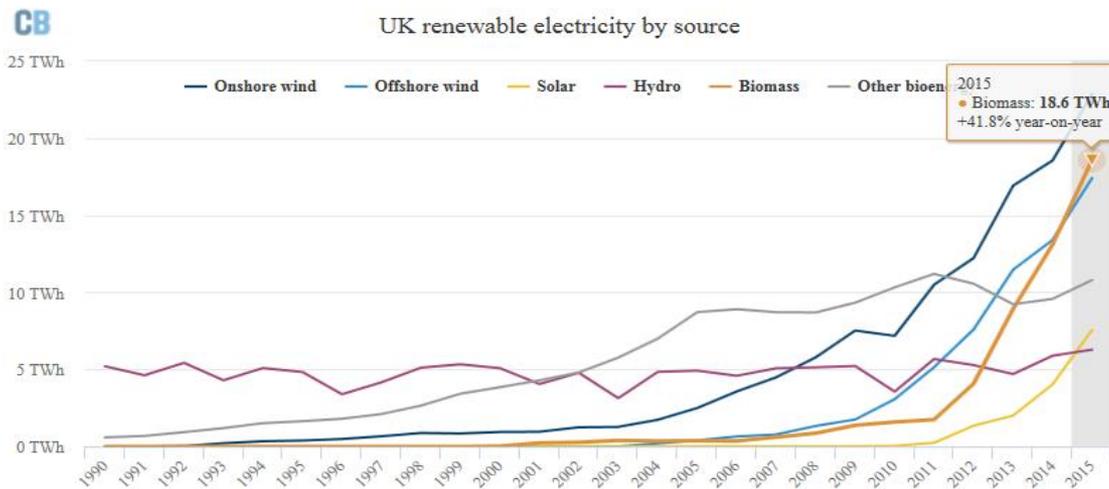
# UK Renewables Mix

https://www.carbonbrief.org/six-charts-show Six charts show UK progress towards low-carbon energy

SIMON EVANS 28.07.2016 | 5:12pm

UK POLICY Six charts show UK progress towards low-carbon energy

showed that solar generated more electricity than coal for a full month for the first time ever.

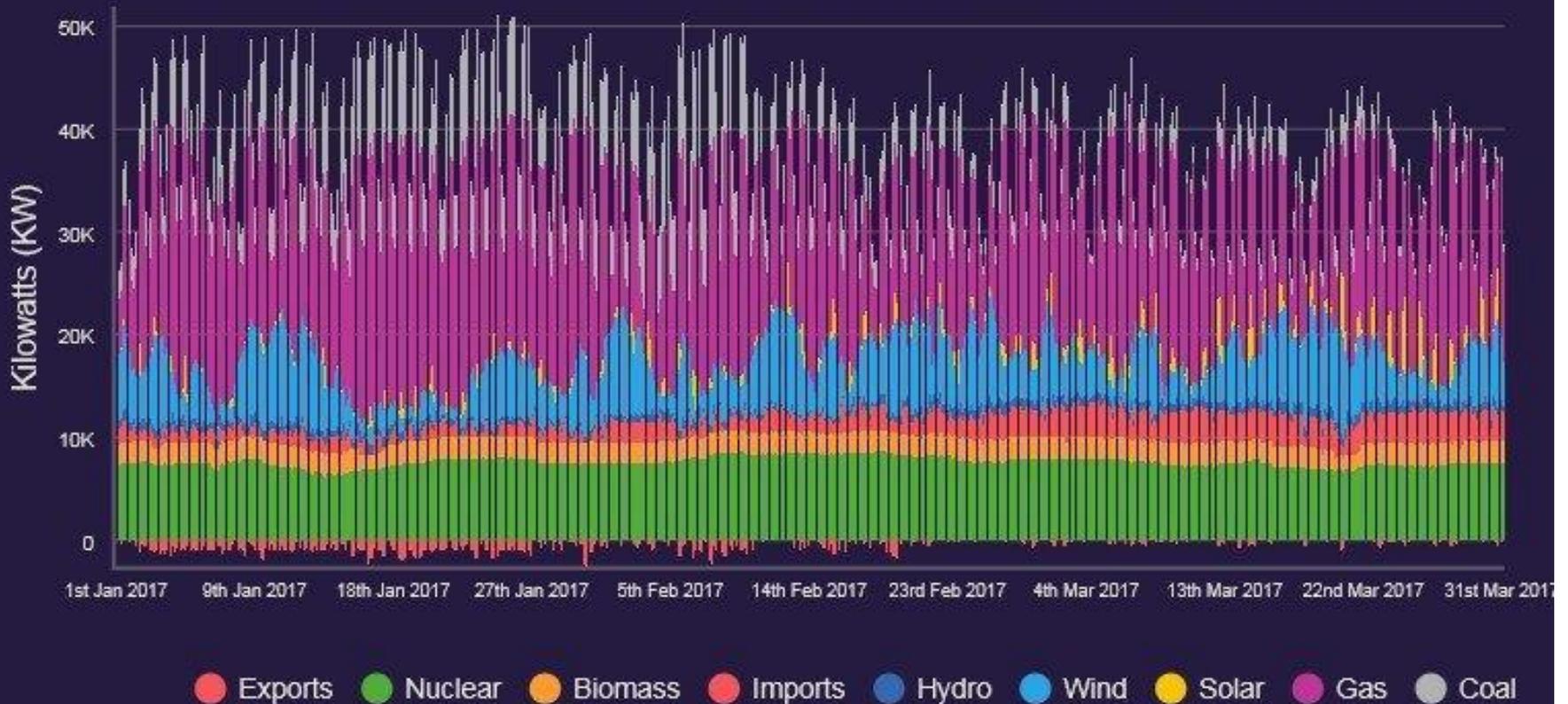


UK renewable electricity by source (TWh), 1990-2015. Source: DUKES table 6.1.1. Chart by Carbon Brief using Highcharts.

Q.1 2017 carbon emissions down 40% compared to 2009/13 average – it's working.

# UK Power Mix Q.1 2017

Great Britain electricity supply Q1 2017 [electricinsights.co.uk]

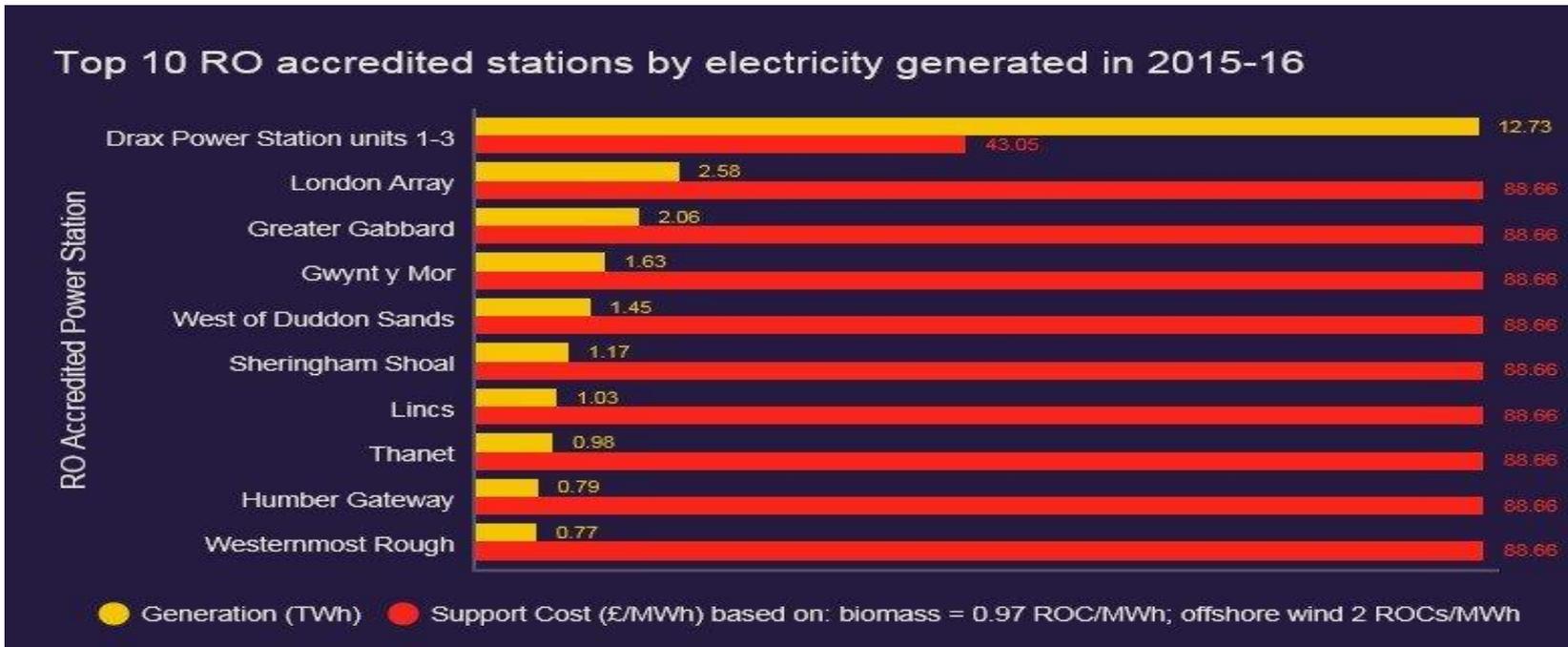


Wind=11.3 TWh, Solar 7.7, Biomass 4.4TWh, Hydro 1.6.

Biomass produced 5.5% total supply.

# Role Biomass

- UK consumed 303 TWh in 2015. (enough power to boil a kettle 121 billion times.)
  - (1TW = 1,000GW = 1,000,000MW)
- Average UK household consumes c. 3.9 MWh /yr
- Drax pellet units alone 2015 produced 11.5TWh - 3.8% UK requirement.



# Subsidies - Snapshot

## ROCs-

- Suitable for dedicated biomass CHP or power only.
- 400MW power only cap and option closed Apr-17. (England & Wales.)
- A grace period was allowed to Mar-18.
- *Grace period extended to Sept-18 now.* ( If not at fault?)

## RHI-

- Dedicated biomass can still apply for this if it has heat use?
- Consultation is being considered now, will it change?

## CFD's-

- Could be used for dedicated biomass CHP plants but NOT power only unless ACT.
- (Drax & Lynemouth have this option – would commercials work for small scale waste wood?)

## Capacity Market-

- Potentially but prelim's now closed out to 2020/22 auctions.
- Next Prelim's, some point next year for 2020/23 auction slots.

# Waste Wood & Biomass

- Assume 500MW of capacity will be fired on waste wood = 3million tonne.
- There is additional consumption from heat only outlets and small scale RHI.
- 500MW x 8736 hours @ **70% load factor (?)** = c. 3 TWh = c. 770,000 UK households.
- Circa 1% of annual UK power consumption.

# Impact on Waste Wood Market

| Sector                   | 2012<br>Tonnes)<br>(000's | 2016   | 2018?   |
|--------------------------|---------------------------|--------|---------|
| Panel Board              | 909                       | 839    | 839     |
| Large Scale Biomass      | 759                       | 1,500  | 3,000   |
| Higher Value Products(1) | 593                       | 650    | 650     |
| Export                   | 590                       | 630    | ?       |
| Total Demand             | 2,851                     | 3,619  | 4,589   |
| Long / Short (2)         | +2,149                    | +1,381 | +411(3) |

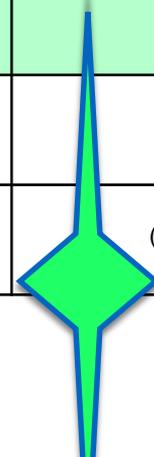
1) Animal bedding, equine, mulches.....

2) Assume 5 million tonne availability?

3) 5 MT +/-10% = BALANCED market

# Impact on Waste Wood Market- Possible Scenarios in Medium Term / Post 2018

| Sector                           | Worst<br>Tonnes)<br>(000's | Best                | Likely              |
|----------------------------------|----------------------------|---------------------|---------------------|
| Panel Board                      | 839                        | 839                 | 839                 |
| <b>Large Scale Biomass</b>       | 3,771<br>load)<br>(90%     | 3,000<br>(70% load) | 3,428<br>(80% load) |
| Higher Value Products(1)         | 593                        | 400                 | 500                 |
| <b>Export</b>                    | 630                        | +250                | +100                |
| Small Scale / Power Only biomass | 250                        | 250                 | 250                 |
| <b>Alternative Fuels</b>         | 0                          | +400<br>(c.10%)     | +200<br>(c. 5%)     |
| <b>Total Demand</b>              | 6,083                      | 3,839               | 4,717               |
| <b>Long / Short (2)</b>          | -1,083                     | +1,161              | +283<br>(BALANCED)  |



Which Scenario?

What's the impact today?

What's the impact tomorrow?

How do the risks and opportunities mix?

What if?

## Babcock & Wilcox Q.3 2017 Results Commentary:-

“During the quarter, we made significant progress on our U.K. Renewable new-build projects, and we continue to expect these projects to be substantially construction complete by mid-2018,” said E. James Ferland, Chairman and Chief Executive Officer.

“Importantly, we were able to agree to design changes with multiple customers that enhance plant performance and largely offset the financial impact of the boiler structural steel design issues we identified in late-September.”

“In September 2017, the Company identified and announced the failure of a structural steel beam at a renewable new-build project in the U.K. Work was temporarily stopped at the project, pending corrective actions to stabilize the structure. A similar design was used on two other new-build projects in the U.K., and although no structural failure occurred on these projects, work was also stopped for a short period time, and reinforcement of the structure is underway.”

# Challenges to Date

*At budgeted load factor, 2020???*



## IMPACT OF THIRD PARTY PLANT DELAYS



| Plant            | Fuel Type    | Contract (tonnes pa) | Commissioning Started |
|------------------|--------------|----------------------|-----------------------|
| Mersey Bioenergy | RCF          | 146,000              | Yes                   |
| Tilbury          | RCF          | 270,000              | Yes                   |
| Templeborough    | RCF          | 260,000              | No                    |
| Margam           | RCF          | 250,000              | No                    |
| Port Clarence    | RCF          | 250,000              | No                    |
| Cramlington      | Virgin Blend | 119,000              | Yes                   |
|                  |              | <b>1,295,000</b>     |                       |

Impact of third party plant delays does not affect the value of the contracts

# Alternative Fuels

## Zero Waste Scotland 2017 Biorefining Potential

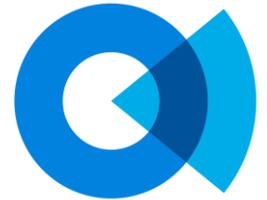
For the first time, in this ground-breaking report, which supports the Biorefinery Roadmap for Scotland, the scale of the opportunity across these and other sectors has been studied using a pioneering approach to map bioresource arisings. The scope of the opportunity is huge: there are **27 million tonnes of bioresources** arising every year in Scotland which could be turned into high value chemicals, biofuels and other renewable products across many industries.

- The process for a plant to accept a new fuel is long.
- Warranty period needs to be cleared 1st

# Imports & Exports

- UK Exports to mainland Europe already on a decrease
- Legislation in Germany and Netherlands has / does / will change.
- Will Sweden impose “incineration tax”;
  - “Proposals include £9/t tax on all non-haz waste incinerated”
- Appears European takers are consolidating in their own markets now understanding the best value chains.
- Tide is turning – likely imports will start to flow in greater volumes next year?
- (Brexit / exchange rate / legislation.....?)

Your thoughts...?



**SOCOTEC**  
THE POWER OF FORESIGHT

# SOCOTEC UK presenting to WRA

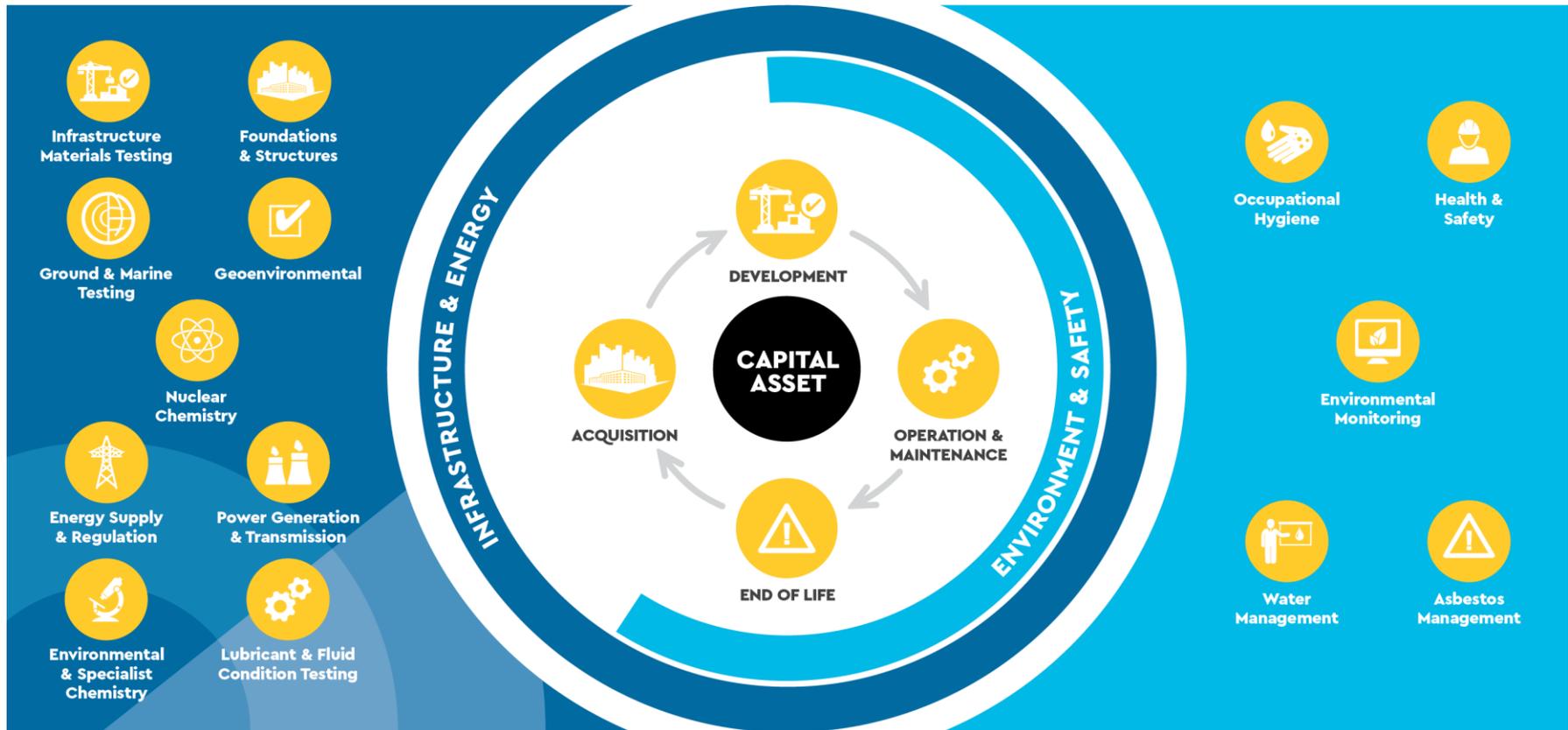
DECEMBER 2017

# SOCOTEC IN NUMBERS



# SERVING OUR CLIENTS ACROSS THE ASSET LIFECYCLE

Delivering services across the asset life cycle to ensure regulatory compliance, and to inform business critical commercial decisions



# WHY IS ROUTINE ANALYSIS SO IMPORTANT?

## LEGISLATIVE COMPLIANCE

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### Permit Compliance

Recycled wood processors and generators will all work to agreed EA permits and routine analysis is required to demonstrate ongoing compliance:

- ▶ Noise, Odour Dust
- ▶ Waste Acceptance Criteria
- ▶ Water Analysis
- ▶ Stack Emissions

## CLIENT SPECIFICATION

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### Fuel Supply Chain

As recycled wood becomes a traded fuel, routine analysis is critical to ensure that fuel meets the specification required by the client:

- ▶ Particle Size
- ▶ Moisture Content
- ▶ Calorific Value
- ▶ Contaminants

## FINANCIAL INCENTIVES

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### Subsidies & Disposal Costs

Regulatory bodies such as Ofgem, EA and HMRC require analytical evidence for financial claims or agreed disposal routes:

- ▶ ROCs
- ▶ LOI on Waste Fines
- ▶ Hazardous/Non-Hazardous Classification

## Choosing the right partner for analysis

### Accreditation

- **UKAS** accreditation means that a laboratory is externally audited and meeting the requirements set out in **ISO 17025**
- **MCERTS** is used to approve instruments, people and laboratories; water, soils and air quality

### Quality Management System

- Robust analytical methods
- Internal quality controls and audit programmes

### Understands Your Challenges

- Provide advice and guidance
- Engages with industry to provide analytical solutions



# RPS 207: CLASSIFYING WASTE WOOD

## Working with WRA to meet the challenges of RPS 207

- Metals analysis
- Semi Volatile Organic Compounds (SVOC) including PAH and PCP
- TPH (C8 to C35)
- Organochlorine pesticides
  
- Developing bespoke sampling and analysis methods to support classification of waste wood

# LAB TOUR: ENERGY & ENVIRONMENTAL CHEMISTRY



## Energy

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- ▶ Particle size distribution
- ▶ Moisture content
- ▶ Calorific value
- ▶ Elemental analysis
- ▶ Biomass content
- ▶ Composition analysis



## Environmental Chemistry

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- ▶ Trace contaminants and metal analysis
- ▶ Loss on Ignition (LOI) analysis
- ▶ Characteristics of unknowns
- ▶ Organic and inorganic compounds
- ▶ Waste Acceptance Criteria (WAC)
- ▶ Water analysis

[www.woodrecyclers.org](http://www.woodrecyclers.org)

