What future for Solid recovered Fuel (SRC)

IEA Bioenergy Task 36 Workshop 20th November 2013

This workshop discussed end of waste for solid recovered fuels, the results to the Recombio project and experience with the use of solid recovered fuel in Italy.

Solid Recovered Fuels are of increasing interest in Europe, driven by limits on carbon emissions and the increasing cost of energy and waste disposal. At the moment over 1 million tonnes of SRF are produced in Italy alone. SRF is developed from industrial, commercial or municipal waste to meet a specification as defined in EN15359 (CEN /TC 343) and as required by specific customers such as cement kiln operators or SRF combustion plants. This workshop updated progress in the SRF area since our previous workshop in November 2011 and included a discussion of the progress on end of waste criteria for SRF used in combustion processes in Italy (the DM 22/2013 Ministerial Decree).

SRF producers face a number of challenges: they have to provide a fuel to customer specification that meets regulatory requirements and is cost effective. This is against a background of increasing regulation of carbon emissions and competing requirements for waste recycling and recovery. SRF production should not compete with recycling, but should complement it, helping to increase source separation and decrease waste taxes and other costs. Most development of SRF concentrates on the use of complex or difficult to recycle feedstocks, for which energy recovery is best practice. Thus SRF is a term used to refer to a wide range of fuels that are used in a range of applications. Presentations at the workshop discussed how SRF is produced and where it is used. This included use in cement kilns and co-combustion in coal power plant in Italy.

The workshop also discussed the development and requirement of Ministerial Decree DM 22/2013 for end of waste for SRF in Italy and the challenges involved in achieving 'end of waste' status for SRF. There is a need to achieve REACH as well as end of waste status and there are restrictions on the length of time that the waste can be stored. However, the opportunities are that SRF production that has achieved end of waste should lead to easier transport and handling and the development of a market for a true waste derived fuel. This workshop discussed these challenges, how they are being overcome in Italy and where the major 'threats' remain (such as public perception).

The workshop also included an update on the important RECOMBIO project that is examining the combined use of bio-residues and SRF and their use in co-incineration plants in Germany.

The following conclusions were drawn at the workshop:

- CEN/TC343 has produced useful definitions for SRF and tests for the characteristics of SRF, enabling evaluation of the quality of SRF and its management.
- Work is still needed to increase confidence in SRF, both for the users and for public perception.
- It is not possible to classify SRF on the basis of a single sample, and an agreed monitoring and sample protocol is necessary.
- A mature market for SRF requires transparency, data sharing and accepted procedures.

- Users called for SRF characteristics that decrease polluting emissions, improve combustion characteristics, increase the sustainable use of biomass contained in waste, develop high quality SRF and reduce management costs.