

Push for CHP in Europe

28-NOV-2008

COGEN Europe has revealed plans to outline a European Energy Integration Project (EIP) during the Econcern Sustainable Energy Event in Poznan, Poland, in early December.

The trade group plans to explore the challenges from integration of cogeneration into the European energy mix and intends to outline a practical route to the EU target for carbon emissions reduction.

Presenting its findings in Copenhagen in 2009, the project aims to focus politicians, policy makers and citizens on the practical steps needed to create a sustainable future. Challenging the traditional ideas of where and how to start the cogeneration process, the EIP will use lessons learned from existing cogeneration installation to identify where the real challenges lie.

Building on work carried out in several studies including work by the International Energy Agency CHP/DH Collaborative, COGEN Europe, the World Alliance for Decentralised Energy (WADE), and others, the EIP will scope the size of the challenge facing two metropolitan areas and identify alternative paths and timescales to reaching target carbon levels. Using knowledge developed through practical experience of managing heat and electricity supply together, the project will identify the range of successful policy tools which create a supportive structure for the integrated supply of energy.

The EIP will recommend a mix of technical, economic, regulatory and other measures, including behavioural changes, to fulfil the long-term sustainability target for large metropolitan areas in Europe.

30th November 2008

CHP is good, but it doesn't address the fundamental problem. If you are getting heat from a fossil fuel power station, you are still burning fossil fuels.

Doly García

30th November 2008

Hi, my small contribution:

You all got the modified Wasdell report, with the grim bits highlighted in red ink.

Well, today's Indy on Sunday has an even grimmer report, quoting Hansen, that once the climate tips and we get a high temperature rise, it might not go back down, ever, no matter what we do. Game over.

The estimate is that it would take thousands of years or more to see temperatures drop, back to anywhere near "Normal".

The absolute key issue is stopping all fossil fuel burning asap, and actively reducing carbon in the atmosphere by a massive green forestry

program. Even then, it would be dangerously close.

So CHP would be of no use in 60-70 years time, when most of the population are dead.

**What's urgently needed is a new source of non-fossil energy
.....alternative sources, (Wind, marine, solar) might do it.....**

Regards

Graham Ennis

30th November 2008

Hi Graham

I'm reserving comment on the Wasdell report for the moment - I need to work through it.

Re: CHP - like energy conservation, my point is that we should focus on the best EROIE schemes. As with a mass switch to electric vehicles I have concerns that we risk bringing forwards energy use (and hence peak energy and potentially climate effects) if we rush for technologies that do not have the best EROIE performance. In the case of Shoreham CCGT, if retrofit is possible, there is approx 200MW of power available. In a previous email I showed this as greater than the output of current largest UK windfarm. We already liberating this energy from gas combustion and hence the potential EROIE return if incorporated into a newbuild scheme will be huge. Should the mooted 10K of homes go into Shoreham this could heat them all for NIL extra fossil burn and IMO a near identical plumbing overhead. According to BERR UK Renewable Energy Strategy Consultation June 2008 para 4.1.1 heat accounts for 49% of UK energy demand (equal to 906.6TWh) and 47% of UK CO2 emissions. Of this demand 54% is from the domestic sector. (fig 4.1).

My own view (as ever!) is we should do everything possible to make the best use of what we already have to free up energy capacity. This liberated capacity can be used to provide future infrastructure without incurring a short term increase in energy consumption whilst we are still majority fossil fuel dependent. We are not going to be in a position of switching technologies overnight and so we need to ensure our current technologies are optimised pending larger technological shifts. Agree that by 60-70 year time frame gas consumption should be replaced.

Regards

[a contributor]

1st December 2008

Hi, I think that realistically, my comments about the urgency of the situation, which are based on hard science, and echoed by others, are not going to affect Government policy at all, so the best we can hope for, in the interim, is a serious attempt to retrofit carbon scrubbers to existing fossil fuel stations. This is possible, but not probable! (Six billion for new nuclear weapons, zilch for green technology!).

What a serious mess the Government policy is.

Graham Ennis

14th December 2008

Hi all

Strongly pro CHP report at:

<http://www1.eere.energy.gov/industry/distributedenergy/>

Good headline stat - US thermal generating plant currently wastes more energy than the total energy consumption of Japan!

Also includes figures on possible employment potential and CO2 savings.

Regards

[a contributor]

14th December 2008

Hi,

Sadly, we have been able to build combined MHD and turbine plants for about 40 years now, but no one does..... they are around 70% plus efficient..... use a combined water/ammonia turbine, and it goes to 80% so the amount of "Waste" heat is much lower. Do this with CHP, and we are looking at around 90-95% efficiency..... very nearly double, in fact. Add oxygen combustion, etc, and we are producing just a third of the CO2 previously. Then stick a scrubber on the back, (green algae) it goes down to about less than 20%. Existing technology..... which will not be used, until the Government holds a gun to the head of the power company fat-cat directors and makes them. If we used methane gas from recycled animal and green waste, the whole cycle would be carbon neutral, and about 25% of our generating capacity could do this, so final carbon would be about 10% of that at present. Add wind power, big time, and you get to almost nothing, compared with today..... it's very economical, of course.....

Regards

Graham Ennis

14th December 2008

Existing technology..... which will not be used, until the Government holds a gun to the head of the power company fat-cat directors and makes them.

I doubt it's that simple. People don't refuse to do things for no reason at all. We are right now talking to Scottish Power. We'll have a chance to ask them why they aren't implementing these technologies.

Cheers,

Doly García