WASTE AND CLIMATE CHANGE
TURN THE EU AWAY FROM MORE INCINERATION

GAIA, HCWH and Bankwatch ask the ENVI Committee of the European Parliament to:

- **Oppose upgrading of incineration in EU legislation** – delete the energy formula and make energy efficiency compulsory for ALL incinerators.
- **Support plans to increase diversion rates** in the EU by including recycling targets and enhancing producer responsibility.
- Support efforts to **legislate on bio-waste** and foster organics separation.

We are particularly concerned that in these times when Climate Change is already affecting our everyday lives, the EU might be promoting old techniques to face new challenges. Incineration is proven to worsen climate change by emitting more GHG to the atmosphere than recycling[i], increasing dependency on high waste generation and diverting waste that should be recycled or composted.

- **Incinerators produce two times more greenhouse gases per kilowatt-hour of electricity than coal-fired power plants.** [ii]

Incineration is not a clean source of energy. Aside from producing toxic ash, and air and water emissions, incinerators are also damaging to the climate. When properly counted according to IPCC guidelines biogenic carbon[1], they produce double the greenhouse gases of coal-fired power plants. This is because they have very low energy efficiency and can only capture a small proportion of the energy contained in the waste itself. From a broader perspective, incinerators destroy materials which could be recycled, forcing increased extraction and industrial processing of raw materials, which is much more energy-intensive than reprocessing recyclables.

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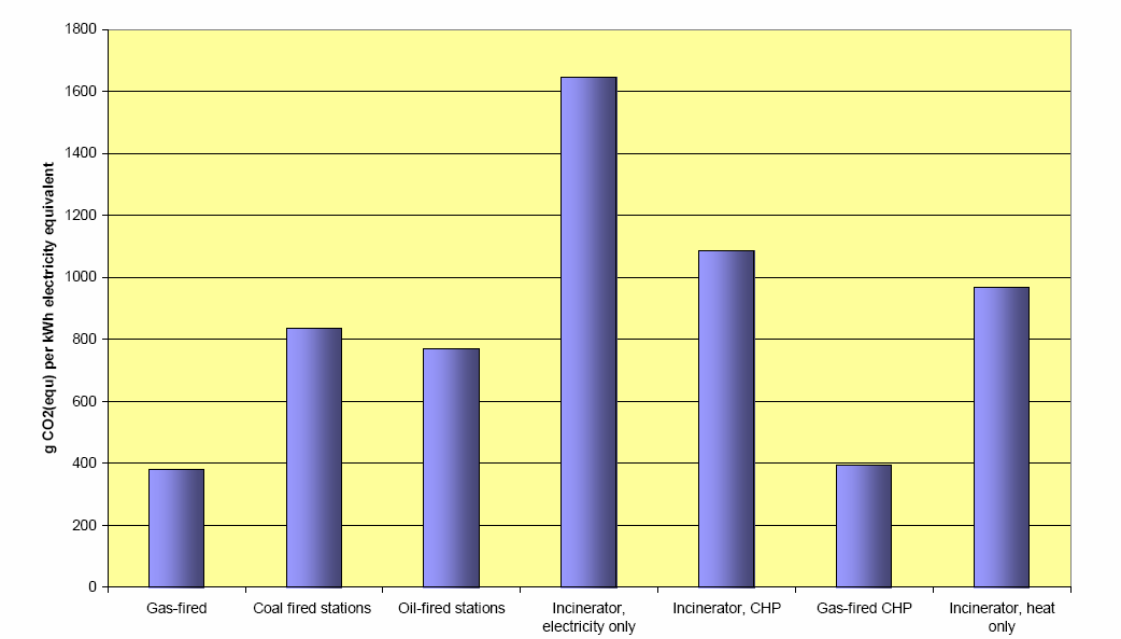
[1] When comparing power sources, the IPCC explicitly states that biogenic emissions must be counted: "The CO_2 emissions from combustion of biomass materials (e.g., paper, food, and wood waste) contained in the waste are biogenic emissions and should not be included in national total emission estimates. However, if incineration of waste is used for energy purposes, both fossil and biogenic CO_2 emissions should be estimated."[1] This is because all CO_2 emitted from an incinerator, regardless of origin, will have the same effect on the atmosphere. Even when biogenic carbon is not counted incineration still produces more CO2 per unit generated than a gas fired power station.

Greenhouse Gas Emissions by Power Plant Type



The only efficient way to reduce CO2 emissions in waste management is to reduce, reuse and recycle.

- **Increasing recycling and composting rates up to 75% is possible. Targets are necessary!**

Recycling and composting is more environmentally and economically sensible than incineration. It will be impossible to reach rates of 75% in Europe before 2035 if the EU continues to promote incineration.

The EU and European Investment Bank are planning to finance at least 18 waste incinerators in Central and Eastern Europe[iii] (CEE). This initiative[2] will hinder the future ability of CEE Europe to achieve high recycling rates during the life-time of the incinerators.

In the United States no new municipal incinerator has been built since 1996, which has helped to increase recycling rates. California jumped from a 30% diversion rate in 1997 to 60% in 2007[iv] (San Francisco has reached 75% and aims at getting close to 100% in 2020).

[2] More than 2 bln euro are allocated to be wasted in incineration projects in the next 5 years (1.2 bln euro from EU funds). In the meantime initiatives in CEE like Palarikovo in Slovakia or Plock and Bytom Odrzanski in Poland show that even without waste management plans is possible to achieve 65% diversion rates in CEE.

In Europe, regions like Oost-Brabant in Flanders, Belgium, have achieved 75% diversion, and countries like Austria and the Netherlands are above 60%. Also many districts in Italy, e.g. Treviso and Novara have jumped from 30 to above 65% in a short period of time, showing the feasibility of high-recycling strategies across Europe. Even around Naples, some 145 municipalities have implemented intensive kerbside collection, thereby hitting percentages of 50-60% and more (peaks at 80%).

Moreover, separate collection of paper and organics delivers a remarkable diversion of biodegradable waste from landfills in a comparatively short time, thereby "gaining time" relative to deadlines of the Landfill Directive.

Any municipality can jump to over 50% diversion as soon as separate door-to-door collection of food waste and dry recyclables is implemented. When door-to-door collection is applied, recycling rates can be easily doubled or tripled in only one week.

No serious waste management plan should include building an incinerator. This will only prevent communities from achieving high diversion rates for the lifetime of the incinerator: 30 to 40 years or more.

- **Stop soil degradation, use composting to sequester carbon.**

Europe's agricultural soils have lost about 50% of their organic carbon in the last 20 years. The loss of carbon has been a factor in advancing desertification in southern Europe as it reduces the capacity of the land to capture and store water and increases risks of droughts and floods. It also hampers the nutritional and biological capacities of soils to support plant growth.

In Northern Europe, where the higher level of organic matter is less likely to cause a "pre-desertification" process, if organic waste is not returned to the soils, an impressive amount of carbon is being transferred from soils into the atmosphere as CO_2, where it causes the greenhouse effect. This is why, in the overall carbon balance, policies should seek to promote a build-up of carbon in soils (where it enhances fertility) which also prevents more carbon in the atmosphere (where it causes climate change).

The IPCC identifies carbon sequestration in soils as one of the possible GHG mitigation measures for agriculture. Therefore using the organic part of MSW to do proper compost can help to restore soil quality and sequester carbon in soils.[v]

ZERO WASTE strategy for Europe

EUROPE, A RECYCLING SOCIETY? ***Only political will stands in the way!***

Zero Waste – the total conservation of material resources – is a realistic goal for Europe.

1- Start with source separation. Any community can reach a 70% landfill/incinerator diversion rate within five years with source separation and proper reuse, recycling and composting schemes. Examples in Europe prove that moving from 20 to 60% diversion rates is possible in a short period of time.

2- Waste reduction, including producer responsibility is key: the redesign and minimisation of products and packaging can reduce waste generation by at least 20%.

3- Communities can thus quickly reach 90% diversion rates. This means sending less material to a landfill (and less toxic material) than an incinerator, which produces a perpetual stream of hazardous ash and slag. Moreover, adoption of a Zero Waste goal and rapid progress towards achieving it can be made much more quickly than the 10+ years it takes to build a new incinerator.

If right policies are implemented no new MSW incinerator or landfill should be built in Europe.

"Why promote incineration when we are so close to changing the paradigms of our society?"

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[i] Dirty Truths FoE http://www.foe.co.uk/resource/briefings/dirty_truths.pdf
[ii] Including CO2 from biogenic carbon. 1645g versus 835g of CO_2 equivalent per kWh. This is for incinerators producing only electricity, based upon UK data. Source: "A Changing Climate for Energy from Waste?", Dominic Hogg, March 6, 2006
[iii] http://bankwatch.org/billions/
[iv] http://www.zerowaste.ca.gov/ http://sfgov.org/site/frame.asp?u=http://www.sfenvironment.org http://www.ciwmb.ca.gov/lgcentral/Rates/Graphs/TotalWaste.htm
[v] The potential role of compost in reducing greenhouse gases, Enzo Favoino and Dominic Hogg, Waste Management Research 2008; 26; 61, http://wmr.sagepub.com/cgi/content/abstract/26/1/61