Environmental Assessment of Olympic Sponsors

Olympic sponsors, who provide large numbers of products and services for the Games, also have a significant impact on the overall environmental footprint of the Olympics. Sponsors have an equal responsibility to promote environmental protection during the Olympics, starting with minimizing their own environmental impacts.

Greenpeace believes that the most significant way for sponsors to uphold the theme of Green Olympics is to provide best-available-technology (BAT) and to engage in best practices that not only reduce their environmental footprint for the Olympic Games but also serve as a model for their respective industries.

Greenpeace's involvement with Olympic sponsors began in 1997 as part of Sydney's push for a Green Olympics. Greenpeace approached select companies and requested that they demonstrate state-of-the-art products and best practices that decrease their respective environmental footprint.

Rather than approaching all Olympic sponsors, Greenpeace has historically selected a number of sponsors that have the largest influence in their own industries. Moreover, rather than campaigning on all environmental issues related to particular sponsors, Greenpeace has chosen to work on a few environmental issues that can be addressed or solved with more leadership from select corporate leaders.

For the 2008 Games, Greenpeace contacted seven sponsors, including Coca-Cola, Haier, Lenovo, McDonald's, Panasonic, Samsung, and Yili. We focused our engagement with selected sponsors on two key issues: 1) climate change and ozone protection where we pushed refrigeration-using sponsors to adopt climate-friendly (HFC-free) refrigeration technology and 2) toxic contamination and waste management, where we pushed electronic sponsors to showcase greener electronic products with less toxic substances.

Climate-friendly cooling and green electronics are both significant environmental issues that have been met with significant amounts of corporate inertia or disinterest. With escalated efforts by NGOs to make these issues a more important part of the corporate agenda, and sincere efforts by companies truly committed to corporate social responsibility, green electronic products and climate-friendly cooling technologies could soon become the norm. Greenpeace believes the Games provide an ideal platform to shine a spotlight on these best available technologies and bring them into the mainstream.

Beyond ozone-friendly — climate-friendly cooling

How do refrigerants used in air-conditioning and food and beverage cooling contribute to climate change?

In the race to save the ozone layer in the late 1980s, the chemical industry invented a new set of chemicals called HFCs. These chemicals were to replace CFCs and HCFCs, which were widely used in refrigeration and air-conditioning and were to be phased out under the Montreal Protocol due to their ozone-destroying properties.

While ozone-friendly, HFCs are nonetheless thousands of times more potent than CO_2 as GHGs. Left unchecked, HFCs are expected to constitute 8.6% of all GHGs by 2050.[167] Fortunately, natural alternatives—which are both ozone-and climate-friendly and include a wide variety of refrigerants such as hydrocarbons, $C0_2$, ammonia, water, and others—exist.

Greenpeace has played an active role in developing and promoting climate-friendly natural refrigerants. In 1993, when the chemical industry claimed that there were no green alternatives to HFCs, Greenpeace worked with a German company—Foron—to develop and market the first climate-

167. Schwarz, Winfried. The high and still growing share of fluorinated greenhouse gases in overall global warming emissions-Summary of an Oko-Recherche study (including special remarks on commercial refrigeration), Frankfurt, June 2004, on behalf of Greenpeace

friendly cooling refrigerators.

The resulting "Greenfreeze" technology relies on climate-friendly hydrocarbons instead of HFCs. There are now close to 300 million Greenfreeze units worldwide. Greenpeace has also played a role in facilitating the transfer of natural refrigeration technology into China.[168] Today, more than 75% of China's domestic refrigeration market uses Greenfreeze refrigerators.[169]

Greenpeace's first ever Olympics sponsor campaign was around the issue of climate-friendly cooling. In the lead-up to the Sydney Olympics, Greenpeace actively campaigned on Olympic sponsor companies such as The Coca-Cola Company and McDonald's to take action to eliminate potent HFCs in its refrigerant systems. Greenpeace continues to advocate companies to directly leapfrog into natural refrigeration technology.

Greenpeace campaigned to push Coca-Cola to supply climate-friendly cooling for the Sydney Games.

Selected Achievements

The Coca-Cola Company

Greenpeace has lobbied successfully for Coca-Cola to make 100% of its 5 658 coolers used in the Olympic venues HFC-free. Coca-Cola's coolers and vending machines will instead be powered by CO_2. Ironically, while CO_2 is a potent GHG, when used as refrigerant, it has a negligible impact on the climate.[170] Coca-Cola's coolers will be the largest number of HFC-free commercial refrigerators of this kind to ever be introduced into China.

In May 2008, Coca-Cola further announced that by 2010, the company will deploy 100 000 CO_2 refrigerators on the market worldwide. While Greenpeace recognizes Coca-Cola's efforts to take on the climate-friendly cooling issue beyond the Olympics, we believe that Coca-Cola needs to do much more, as the 100 000 coolers represent less than 1% of the company's 11 million refrigeration units.

As a next step, Greenpeace is asking Coca-Cola to phase-out the use of HFCs in all of its new equipment worldwide by 2012, in time for the London Olympic Games. Greenpeace is also asking other refrigeration-using food and beverage companies to give a concrete HFC phase-out timeline.

Coca-Cola is part of a coalition called "Refrigerants, Naturally!", supported by Greenpeace and UNEP. This coalition includes some of the world's biggest corporations, such as Pepsi, McDonald's, Unilever, Ikea and Carlsberg, all of whom are in the process of adopting climate-friendly cooling systems.[171]

Haier

China's largest home appliance manufacturer is providing over 30 different product categories to the Games. Haier receives credit for promoting prototypes of climate-friendly and energy efficient solar-based HFC-free air-conditioners. These prototypes, which use water — a natural refrigerant — for cooling, will be partially showcased in the Olympic Village, the tennis center and other venues. [172]

Haier is to be commended for showcasing HFC-free air-conditioner prototypes, however, the majority of Haier's air-conditioners for Games venues still heavily rely on HFCs as refrigerants. Moreover, while Haier has provided Coca-Cola with HFC-free coolers, which can be seen all throughout Olympic venues, Haier has also provided a large fleet of commercial coolers using HFCs for other sponsors who did not request Haier to supply HFC-free cooling technology.

Presently, a few prototypes of HFC-free air-conditioners exist but this has not been taken up by the industry. HCFCs—which are to be phased-out under the Montreal Protocol—and HFCs—which are to be regulated as part of Kyoto Protocol's basket of GHGs—still dominate the air-conditioning industry.

Greenpeace urges Haier to work after the Olympics to invest in the development and promotion of HFC-free air-conditioning technology, and thereby play a significant role in greening the air-conditioning industry after the Games.

168. To learn more about climate-friendly cooling, please refer to: http://www.greenpeace.org/china/climate-friendly-cooling
169. China Household Electrical Appliances Association (CHEAA)
170. CO_2 does not need to be newly produced but can be taken out of the environment where it is more than abundant and thus does not have any additional impact on the climate.When used as a refrigerant, the global warming potential (GWP) of CO_2 is one (this figure remains the same whether using a 20-, 50-, or a 100-year GWP estimate). On the other hand, the most commonly used HFC, HFC-134a, has a GWP that is 1430 times greater than that of CO_2.
171. For more information on Refrigerants, Naturally!, please refer to http://refrigerantsnaturally.com
172. Haier website http://tjhaier.58.com.cn/active-8-1194959604703

Missed Opportunities and Mixed Results

McDonald's

After lobbying by Greenpeace to showcase state-of-the-art HFC-free technology in its four Olympic restaurants, McDonald's has committed to making two refrigeration equipment categories—grill-side freezers and ice machines—HFC-free.

While these will be the first HFC-free prototypes of their kinds to be showcased in China, McDonald's has missed an opportunity to make all its refrigeration equipments in its four restaurants—including bigger refrigeration systems with higher greenhouse emissions such as the HVAC (heating, ventilation, and air-conditioning systems) and walk-in freezers—HFC-free. McDonald's has already demonstrated that a 100% HFC-free restaurant is possible by opening a HFC-free pilot restaurant in Denmark in 2003.[173]

Greenpeace urges McDonald's to hasten the adoption of HFC-free refrigeration equipment in all its restaurants, both in China and worldwide. Along with Coca-Cola, McDonald's is also a founding member of the Refrigerants, Naturally! initiative.

Yili

While most sponsors were open to discussion, Greenpeace had difficulties reaching or obtaining answers from Yili, one of the largest dairy companies in China, and consequently also one of the largest commercial refrigeration users in the country. Despite Greenpeace's persistent email and phone-call attempts to contact Yili about its use of climate-damaging refrigeration technology for the Olympics, Yili was unavailable for discussion at all times.

Industry sources have confirmed that Yili is providing commercial coolers containing HFCs for the Olympics. Greenpeace believes that Yili has missed an important opportunity to use the Games to introduce cutting edge climate-friendly technology and to demonstrate the company's commitment to environmental protection.

Greenpeace urges Yili to use the post-Olympics period to phase-out the use of HFCs in its ice-cream coolers in favor of refrigeration systems using natural refrigerants.

Hi-Tech Toxic Products

What is in electronic devices?

As the world consumes more and more electronic products every year, hundreds of thousands of tonnes of toxic electronic scrap (otherwise known as e-waste) is dumped in landfills or exported illegally from developed countries to developing countries to be disassembled in backyard operations. This rudimentary recycling process exposes workers, including children, to a cocktail of toxic chemicals.

Guiyu, Guangdong Province (2005)

While the European Union's Restriction of Hazardous Substances (RoHS) regulation has curbed the use of many toxic substances—including cadmium, hexavalent chromium, lead, mercury, polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE) flame retardants—there are many exemptions and not all toxic substances have been regulated. For example, other BFRs and PVC or vinyl plastic, which are widely used in electronic products, are also especially harmful but not regulated.

PVC is a relatively cheap and widely used chlorinated plastic, often used by the electronics industry as an insulator and coating for electrical cables. PVC creates environmental problems throughout its lifecycle. For instance, its manufacturing requires the use of hazardous raw materials, including the basic building block of the plastic, vinyl chloride monomer (VCM) which is explosive, highly toxic, and carcinogenic. When PVC enters the waste stream, if it is burned during disposal (e.g. incineration, uncontrolled burning) or, in the case of electrical cables, to recover valuable copper wire, its high chlorine content can contribute to the

173. To learn more about McDonald's HFC-free pilot restaurant in Vejle, Denmark, please refer to: http://www.refrigerantsnaturally.com/docs/20060425090000.pdf p.38.

formation of highly toxic and persistent chlorinated dioxins.

BFR refers to a wide range of brominated chemicals added to materials to both inhibit their ignition and slow their rate of combustion. Several BFRs, including certain PBDEs and HBCD, have known toxic properties, are highly resistant to degradation in the environment, and are able to bioaccumulate.

Greenpeace has been actively campaigning worldwide on the issue of e-waste by pushing electronics producers to phase out toxic substances from their products. Since 2006, Greenpeace has released a "Guide to Greener Electronics" to rank the top 18 electronics manufacturers on a quarterly basis. Most recently, Greenpeace stopped a shipment of illegal electronic waste from docking in Hong Kong. The shipment was sent from the United States and designated for mainland China.

Greenpeace asked the three electronic sponsors of the 2008 Beijing Olympics, namely Lenovo, Panasonic, and Samsung, to provide PVC- and BFR-free products for the Olympics. PVC- and BFR-free electronic products are slowly being introduced to the market.

Selected Achievements

Samsung

After lobbying by Greenpeace, Samsung announced that it will make one of its official Olympics consumer phone, SGH-F268, 100% PVC and BFR-free, with no intentional use of these hazardous substances and negligible traces of these contaminants. The Beijing Olympics consumer phone will be Samsung's first PVC and BFR-free phone on the market and the first PVC- and BFR-free phone to ever to be distributed for the Olympics. The phone will not only be used in Olympic venues, but also sold throughout China.

Samsung will also move ahead its global BFRs and PVC phase-out plans for mobile phones, originally dated Jan 1st 2010 for BFRs and Jan 1st 2011 for PVC, by one year, to Jan 1st 2009 and Jan 1st 2010 respectively, in support of the green principles of the 2008 Beijing Olympics.

While Samsung is setting a precedent for the Olympics, its commitment is not flawless. SGH-F268 is only one of the three models that will be provided in Olympic venues and to consumers all across China. The other two models are not PVC- and BFR-free.

Missed Opportunities and Mixed Results

Lenovo

Lenovo will supply two computer models – the ThinkPad T60 notebook PC and ThinkCentre M55e — that contain both PVC and BFRs for the Olympics. In 2006, Lenovo gave Greenpeace a commitment to phase-out PVC and BFRs from all its products by the end of 2009, but the company has yet to put a 100% PVC- and BFR-free product on the market. Lenovo has missed an opportunity to use the Olympics as a platform to phase-in green computers that do not harm the environment.

Panasonic

Panasonic will provide more than 16 000 electronic products ranging from audio-visual equipment and high-definition televisions to large screen displays and camcorders to this Olympic Games. However, the company has failed to provide any products that are either PVC or BFR-free for the 2008 Beijing Olympics. This comes despite the fact that the Panasonic already has many products on the market that are PVC-free and a few that are BFR-free. Panasonic has yet to give a comprehensive timeline to phase-out PVC and BFRs in all its products.

Greenpeace Recommendations – Beijing Games and Beyond

Decisions on which companies will become Olympics partners or sponsors is almost purely a financial decision for the IOC and Olympics host cities. While financial considerations are undoubtedly important, the IOC and every host city should also require basic environmental guidelines for sponsors to encourage real leadership on the environment. As part of the sponsors bidding criteria, the IOC should set mandatory standards that prohibit or limit sponsors from using substances that are toxic, polluting, or contribute to climate change and make sure they are enforced by host cities. The IOC should also require sponsors to disclose the environmental information of the products and services they provide for the Olympics for public scrutiny. Moreover, multiple environmental offenders with a negative track record should not be considered in the Olympic sponsors' selection process.