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<sup>1</sup> يتراوح العدد التقديري لمصانع المواد الهيدروكلوروفلوروكربونية في الصين بين 13 (من الخبراء) و19 مصنعا (من الجهاز الحكومي لحماية البيئة). 9

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<sup>&</sup>lt;sup>2</sup> ينطبق هذا أيضا على حالة الهيدروكلوروفلوروكربون-142ب، ولكن إلى درجة أقل لأن قيمة قدرات استنفاد الأوزون في الهيدروكلوروفلوروكربون-142ب هي 0,65.

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تعزى الزيادة في عام 2004 بدرجة كبيرة إلى زيادة في تكلفة الكلوروفورم، ولكن الزيادات كانت أقل تأثرا بالكلوروفورم في عامي 2005 و2006.
 يتراوح المعدد التقديري لمصانع المواد الهيدروكلوروفلوروكربونية في الصين بين 13 مصنعا (من الخبراء) و 19 مصنعا (من الجهاز الحكومي لحماية البيئة). والمعلومات المتعلقة بالمصانع الحاصلة على انتمانات آلية التنمية النظيفة مبنية على مجموع 13 وليس 19 مصنعا.

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Annex IV
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#### Annex III

## CLEAN DEVELOPMENT MECHANISM (CDM)

- 1. Reducing HFC-23 emissions is worth thousands of carbon credits and the destruction of HFC-23, in order to obtain the credits under the CDM, is a relatively cheap process. The former HFC-23 emitters (i.e., HCFC-22 producers) can largely compensate the cash costs of HCFC22 production (subject to RM costs, which have latterly increased hugely) by using CDM credits. Not all of the production of each producer is entitled to CDM benefits but in general it represents a large commercial advantage versus non-beneficiaries, including of course all producers in Article 2 countries. In 2007, almost 30% of the projects in the CDM pipeline were for destroying HFC-23.
- 2. China is currently the world leader in CDM supply with a 73% of market share in terms of 2007 transacted volume (compared to 54% market share in 2006). It is also the destination of choice for buyers of credits. Implementing these CDM projects provides China with significant resources. With the help of the World Bank, China has created a Clean Development Fund which retains 65% of all HFC-23 revenues and, according to the Bank, the Chinese authorities will use these resources for investment in clean development projects focused on climate change. According to one study compliance costs are high. Payments to refrigerant manufacturers, the Chinese government (which heavily taxes the CDM projects), and to carbon market investors by governments and compliance buyers have been estimated to be, in the end, approximately €1.7 billion, while estimated costs of abatement are likely less than €100 million.
- 3. As of April 2008, the CDM Executive Board had issued almost 130 million CERs, in response to slightly less than 550 individual requests for issuance. These issuances occurred over a period of approximately 2 years. Almost half of the CERs come from 11 HFC-23 reduction projects that request large blocks of credits every six weeks to two months. The remainder originated from a larger number of smaller projects.

#### Annex IV

### CHICAGO CLIMATE EXCHANGE (CCX)

- 1. CCX is a self-regulating exchange that administers a voluntary, legally binding program for reducing and trading greenhouse gas (GHG) emissions in North America, with limited participation of Offset Providers from Brazil as well as in North America. It was conceived as a market-based solution to reducing GHG emissions. Members of the CCX make a voluntary but legally binding commitment to reduce GHG emissions. The CCX facilitates the trading of GHG allowances
- 2. Companies, universities and municipalities make up the membership. They join voluntarily and commit to GHG reductions. By the end of Phase I (Dec. 06) all members will have reduced direct emissions 4% below a baseline period of 1998-2001. Phase II, which extends the CCX reduction program through 2010, will require all Members to ultimately reduce GHG emissions 6% below baseline.
- 3. Those members that reduce their emissions below the required level can sell surplus emission allowances on the exchange or bank them. A member that cannot achieve the reduction target internally can meet its compliance commitment by purchasing emission allowances through CCX's electronic trading platform from other CCX Members that reduce their emissions beyond the reduction target, or purchase project-based offsets. Eligible offsets can come from methane collection and carbon sequestration projects.
- 4. Basically, each member has three options for achieving their annual compliance:
  - (a) Achieve their emission reductions internally at the facilities owned by the CCX Members. This option, which accounts for a large majority of verified emission reductions and annual compliance realized in CCX, can be achieved through fuel switching, energy efficiency improvements and managerial changes.
  - (b) Purchase extra emission reductions in the form of tradable "allowances", from other committed CCX Members who have reduced their own emissions by <u>more</u> than the annual CCX reduction requirement.
  - (c) Purchase "offsets" from CCX emission reduction projects that conform to CCX rules and are independently verified by a CCX-approved verifier. Initial CCX eligible offset projects include, *inter alia*: landfill and agricultural methane destruction; sequestration in reforestation and agricultural soil projects; energy, methane, forestry projects in Brazil.
- 5. In the US, membership of the CCX grew from 127 members in January 2006 to 237 members by the end of the year. The driving forces to join the CCX have been to achieve a competitive edge, enhanced brand, reduced costs and encouraged innovation.
- 6. The instrument traded is a Carbon Financial Instrument (CFI). CFI contracts are comprised of Exchange Allowances and Exchange Offsets. Allowances are issued to emitting Members in accordance with the Baseline and CCX Emission Reduction Schedule. Offsets are generated by qualifying offset projects. One CFI is equal to 100.

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