

C A N A D A

PROVINCE OF QUEBEC

DISTRICT OF MONTREAL

DOCKET No. R-3770-2011

RÉGIE DE L'ÉNERGIE / ENERGY BOARD

AUTHORIZATION OF AN INVESTMENT BY
HYDRO-QUEBEC DISTRIBUTION –
ADVANCED METERING PROJECT
PHASE 1

HYDRO-QUEBEC
As Electricity Distributor

Petitioner

-and-

STRATEGIES ENERGETIQUES (S.E.) /
ENERGY STRATEGIES (E.S.)

ASSOCIATION QUEBECOISE DE LUTTE
CONTRE LA POLLUTION ATMOSPHERIQUE
(AQLPA) / QUEBEC ASSOCIATION TO FIGHT
AGAINST AIR POLLUTION

Intervenors

G. OBERFELD

Environmental Epidemiology Study of Cancer Incidence in the Municipalities of Hausmannstatten & Vasoldsberg (Austria), 2008. This government-commissioned study found significantly increased cancer risk relative to a lower-exposure reference category, 23x higher for breast cancer and 121x higher for brain tumors, with strong exposure-effect relations.

The full 111-page report is available in German at <http://www.hese-project.org/hese-uk/en/papers/hausmannstatten2008.pdf> . We file a brief English summary of this report published at http://www.hese-project.org/hese-uk/en/niemr/hausmannstatten_summary.pdf .

Referred to in **David O. CARPENTER**, *Expert Report*, Revised on May 14, 2012,
C-SE-AQLPA-0072, SE-AQLPA-7, Doc. 1.1, parag. 38.
Filed on May 14, 2012

Exhibit SE-AQLPA-7 - Document 8

G. OBERFELD, *Environm. Epidemiol. Study of Cancer Incidence Hausmannstatten & Vasoldsberg, 2008*
Attachment to the Expert Report of David O. Carpenter
Filed by Stratégies Énergétiques (S.É.) / Energy Strategies (E.S.) and the AQLPA

Régie de l'énergie / Quebec Energy Board - Docket no. R-3770-2011
Authorization of an investment by Hydro-Quebec Distribution – Advanced Metering Project Phase 1

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New case study confirms increased cancer risk by portable radio radiation

The Health Ministry examines the results of the collection of cancers in the periphery of 200 meters of a C-net-transmitting mobile phone base station close to Graz;

Graz - Austrian Press Agency (APA) - stated a "significantly increased cancer risk in the periphery of 200 meters by portable telephone radio radiation" was determined by the Salzburg environmental physician Dr Gerd Oberfeld in the context of a study given by the health department of the county of Steiermark ordered in the year 2005.

Cancer incidence data was collected in the area of Vasoldsberg / Hausmannstaetten (district of outer Graz) where a mobile phone base station for the C-net (NMT450) was operated from 1984 to 1997.

Starting point of the study was the suspicion about the number of cancer illnesses in the local population. This was confirmed by the study author Dr Gerd Oberfeld. In the study design it was assumed that the mobile phone basestation could be a factor. The study area was a circular area with a radius of approximately 1,200 meters around the transmitter. A case control study was carried out using three different samples. One of the conditions was for people to live at least five years in the area being studied. The most meaningful sample covered 67 cases - living persons and the deceased cancer patients based on the medical records - compared with the 1,242 'control people'.

With one of the three samples (84 persons) the radiation strength in the sleep areas measured using a test signal generator which was set up 25 meters beside the original basestation. In addition, the radiation levels were calculated with the help of a computer program. The agreement between the measurements and computations was very good according to Oberfeld: "that was a sufficiently good approach for the former exposure. This meant that the computation results could also be used for evaluating the larger samples.

Vasoldsberg/Hausmannstaetten was "an exceptional case with an antenna height of only about eight meters, in the middle of a residential area", stated the study author in the APA discussion. Normally the omnidirectional antennas with a length of approximately two meters for C-net were located on higher masts on elevated sites. The distance between two transmitters lay usually in the range 30 to 50 kilometers. Oberfeld: "It would be meaningful to examine a second location with a similar features to confirm the result of Hausmannstaetten ."

The results of the study caused the political head of the public health authority of Styria Helmut Hirt (S), to pass the study on directly to the "working group health effects of electromagnetic fields" of the Ministry of Health. The working group will examine the results further in February in a special meeting and will introduce further measures if necessary.

The C-net, also as "in-car telephone C" become known, was switched off at the end of 1997 after 13 years. Like Austria, since 2004 other Western European countries have licensed the NMT 450MHz system again. In the year 2006 Austria and the Swedish Green network acquired the frequencies for a radio T-Mobile InterNet system.

Umweltepide­miologische Untersuchung
der Krebsinzidenz in den Gemein­den
Hausmannstätten & Vasoldsberg

Auftraggeber

Amt der Steiermärkischen Landesregierung,
Fachabteilung 8B, Landessanitätsdirektion, Graz

Auf­ragnehmer

Dr. Gerd Oberfeld, Salzburg

20. Jänner 2008