

# CEA EMF Task Group Internal Survey

Presented By

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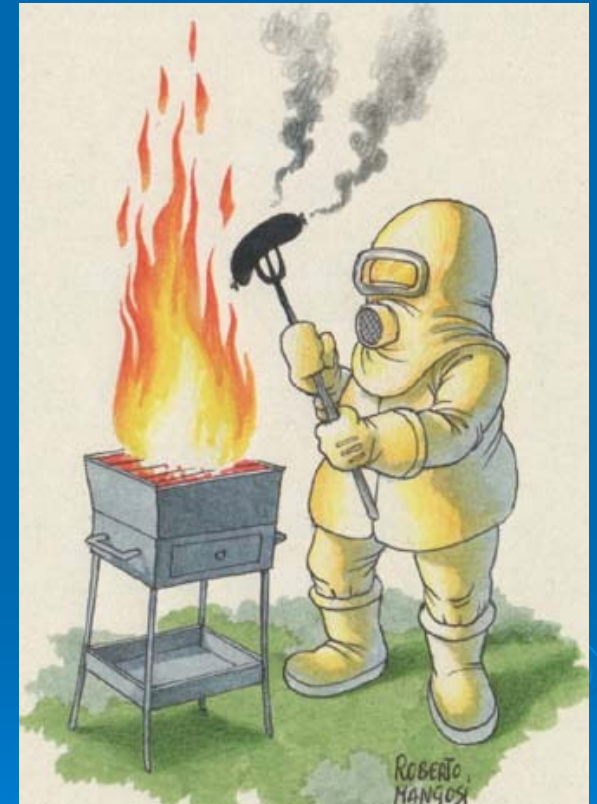
Newfoundland and Labrador Hydro



# Safety Moment


## Getting Your BBQ Ready for Summer

- Remove all rocks and inspect the burner
- Remove all ash and grease that has accumulated
- Test all connections with soapy water to ensure there are no leaks
- Ensure that the burner has an even flame



## Internal Survey Results

# Overview

- There are two distinct categories of meters in use
    1. Spot Measurement Meters
    2. Data Logger Meters
  - Within each category, there are a number of different models in use
  - There seems to be no clear consensus
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## Internal Survey Results

# Meters Currently in Use

- Utilities throughout the country are using a number of different models of each type of meter
- Functionality is very similar from model to model



## Internal Survey Results

# Spot Measurement Meters

- Determines the EMF level at a particular place and time
- Indicates the current EMF level, but cannot determine average field over time



## Internal Survey Results

# Spot Measurement Meters

### Electric Field Measurement (33%)

- Uses a standard multi-meter with a magnetic sensing coil attachment
- Made available by BC Hydro to their customers in their magnetic field kit



## Internal Survey Results

# Spot Measurement Meters

### F.W. Bell (25%)

- Very small with no external coil
- Simple one button operation



## Internal Survey Results

# Spot Measurement Meters

### Monitor Industries (17%)

- The only analog meter in use
- Claims to track changes in EMF levels better than digital alternatives
- Allows the user to determine the source of EMF more easily



## Internal Survey Results

# Spot Measurement Meters

### EMDEX Snap (17%)

- One button operation similar to the F.W. Bell
- Uses a Motorola microprocessor to calculate resultant magnetic field



## Internal Survey Results

# Spot Measurement Meters


### Dexsil Magnum 310 (9%)

- Slightly more complex than the other spot measurement meters
- Can be set to isolate specific frequencies
- Can display component fields rather than just resultant field



## Internal Survey Results

# Data Logger Meters

- This type of meter records a measurement of the EMF level every few seconds
  - Once recorded, the data can be downloaded from the meter and analyzed using computer software
  - Used for in depth studies of averaged EMF exposure levels
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## Internal Survey Results

# Data Logger Meters

### EMDEX II (50%)

- Most commonly used of all meters in survey
- Records field levels based on user defined parameters
- EMCALC software can be used to perform detailed exposure assessments



## Internal Survey Results

# Data Logger Meters

### EMDEX Mate (17%)

- A bridge between the EMDEX Snap spot measurement meter and the EMDEX II data logger
- Records multiple EMF levels over time, but lacks the software required to perform detailed exposure assessments



## Internal Survey Results

# Data Logger Meters

### TES 1394 (9%)

- Many features including the ability to download data to a software package
- Not suitable for precise studies, as accuracy is questionable due to wide frequency range (30 Hz – 2000 Hz)



## Internal Survey Results

# Data Logger Meters

### Dexsil Field Star 1000 (9%)

- Can record data as a function of time, distance or position
- Proven to be a rugged dependable field instrument since its introduction in 1991.

