

331 Shady Ridge Drive  
Monroeville, Pennsylvania

December 10, 2018

*Via Paper Filing*

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
400 North Street  
Harrisburg, Pennsylvania 17120

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DEC 10 2018

PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

RE: **Michele Hriadil and Francis Hriadil v. Duquesne Light Company**  
Docket No. C-2016-2571726

Dear Secretary Chiavetta:

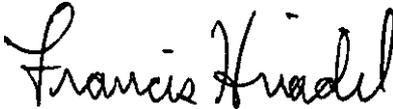
Attached please find a copy of Complainants

Motion to Allow  
a Second Expert Witness, Dr. Andrew Michrowski, Ph'd.,  
for the Complainants

A copy of this document has been served upon Judge Jeffrey Watson, the presiding PA PUC ALJ, and the Respondent's Counsel, Jeremy V Farrell, Esquire, verified as per 52 Pa. Code § 1.36, in accordance with Commission regulations.

Please feel free to contact me if you have any questions.

Sincerely,



Francis Hriadil  
Complainant  
(412) 779-3314  
hriadil@attglobal.net

Enclosure

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

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PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

Michele Hriadil and  
Francis Hriadil,

Complainant,

vs.

DUQUESNE LIGHT COMPANY,

Respondent.

No: C-2016-2571726

**MOTION TO ALLOW  
A SECOND EXPERT WITNESS,  
DR. ANDREW MICHROWSKI, PH'D.,  
FOR THE COMPLAINANTS**

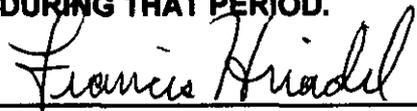
Filed by Michele and Francis Hriadil

hriadil@attglobal.net  
(412) 779-3314  
331 Shady Ridge Drive  
Monroeville, Pennsylvania

**MOTION TO ALLOW  
A SECOND EXPERT WITNESS, DR. ANDREW MICHROWSKI, PH'D., FOR THE  
COMPLAINANTS**

TO: THE HONORABLE ALJ JEFFREY A. WATSON

**AS A RESULT OF THE DENIAL OF RESPONDENT'S MOTION FOR SUMMARY  
JUDGMENT, AND THE RESULTING RESCHEDULING OF A NEW HEARING DATE  
FOR MARCH OR APRIL 2019, COMPLAINANTS FILE THIS MOTION TO ALLOW A  
SECOND EXPERT WITNESS, DR. ANDREW MICHROWSKI PH'D., FOR THE  
COMPLAINANTS, WHO HAS INDICATED THAT HE WILL BE AVAILABLE TO  
PROVIDE EXPERT TESTIMONY BY TELEPHONE DURING THAT PERIOD.**

  
\_\_\_\_\_  
Francis Hriadil  
December 10, 2018

BEFORE THE  
PENNSYLVANIA PUBLIC UTILITY COMMISSION

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PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

Michele Hriadil and  
Francis Hriadil,

Complainant,

vs.

DUQUESNE LIGHT COMPANY,

Respondent.

No: C-2016-2571726

**MOTION TO ALLOW**

**A SECOND EXPERT WITNESS, DR. ANDREW MICHROWSKI, PH'D.,**

**FOR THE COMPLAINANTS**

TO THE HONORABLE ALJ Jeffrey A. Watson:

1. As a result of the denial of the Respondent's massive Motion for Summary Judgment, and the resulting rescheduling of Complainants Hearing date to some time in March or April 2019, with an appropriate new Litigation Schedule timeline, the Complainants' wish to request the allowance of a second expert witness, Dr. Andrew Michrowski, Ph'd., to participate in the Hearing on our behalf. As with our first expert witness, Dr. David Carpenter, the Complainants also wish to utilize the telephonic options that the PA PUC provides to parties, as needed and requested, to enable Dr. Michrowski's participation by telephone.

2. Pertinent Aspects of the Litigation Timeline to Date:

December 14, 2017 - A Pre-Hearing Conference call was held which included the Complainants, the Respondent, and Your Honor.

On this occasion, a Hearing was scheduled for April 26 - 27, 2018, and a Litigation Schedule was set.

Of note, on or before February 2, 2018, notification of participation by any expert witnesses, etc. for the Complainants was to be provided.

September 11, 2017 - Complainants received Respondent's First Set of Discovery Requests Directed to Complainants.

October 26, 2017 - After an agreed on an extension, Complainants served our Response 1 to Respondent's First Discovery Request, entitled Response to Respondent's First Set of Discovery Requests Directed to Complainants, containing 56 potential Exhibit documents and 4 Curriculum Vitae documents regarding potential expert witnesses.

December 4, 2017 - Complainants served our Response 2 to Respondent's First Discovery Request, entitled Additional Documents in Response to Respondent's First Set of Discovery Requests Directed to Complainants, containing 67 additional potential Exhibit documents.

February 1, 2018 - Respondent was served with Complainants Expert and Factual Witness Testimony Notification to Respondent, per the Litigation Schedule, in which Respondent was informed that none of the experts that Complainants have been in contact with were available to participate and provide expert testimony in the scheduled April 26 - 27, 2018 Hearing.

February 6, 2018 - Due to issues related to Complainants dis-satisfaction with responses provided by the Respondent to a number of Complainants Discovery Interrogatories, Your Honor issued a ruling suspending the original Litigation Schedule. The unsatisfactory nature of many of the Respondent's Discovery responses necessitated a change in the Litigation Schedule.

Your Honor's First Supplemental Prehearing Order, you rescheduled the Hearing for July 18 - 19, 2018. A new Litigation Schedule was set at that time.

Of note, on or before April 30, 2018, notification of participation by any expert witnesses was to be provided by any party, to the opposing party.

And, on or before May 18, 2018, notification of rebuttal testimony by any person other than the Complainant or Respondent is to be provided, to the opposing party.

March 27, 2018 - Your Honor issued an Interim Order granting in part the Complainants Motion to Compel the Respondent to answer the Complainants Discovery Interrogatories.

April 30, 2018 - Respondent was served with Complainants Expert and Factual Witness Testimony Notification to Respondent, per the revised Litigation Schedule, in which Respondent was informed that none of the experts that Complainants have been in contact with are available to participate in-person and provide expert testimony in the scheduled July 18-19, 2018 Hearing.

Furthermore, a letter was served to Your Honor, and copied to the Respondent, informing you that Dr. David O. Carpenter MD had agreed to participate in any Hearing on the behalf of the Complainants as an expert witness; but, he could not do so at the scheduled July 18 - 19, 2018 Hearing due to a conflict with his schedule. Additionally, Dr. Carpenter agreed to participate by phone to testify, etc. to mitigate expenses that would be cost prohibitive for the Complainants. Complainants inquired about a schedule adjustment / continuance that would allow Dr. Carpenter's participation at our Hearing.

May 7, 2018 - Complainants received a copy of Respondent's May 4, 2018 response served to Your Honor indicating their objection to Complainant's April 30, 2018 written request for an adjustment (i.e. continuance) in the Hearing schedule that would allow Dr David O Carpenter MD to participate in the Hearing on our behalf as an expert witness.

Complainants did not receive this notification until May 7, 2018.

May 11, 2018 - A letter was served to Your Honor, and copied to the Respondent, with Complainants response to the Respondent's May 4, 2018 written objections.

May 14, 2018 - Complainants received a copy of Your Honor's May 10, 2018 Interim Order Regarding Complainants Request to Modify Litigation Schedule.

In this Interim Order, Your Honor ruled that Complainants immediately confer with their witness and identify the dates the witness will be available to testify ... in July, August, and September of 2018, and file our motion to modify the

litigation schedule and to reschedule the hearing, ..., not later than May 30, 2018.

Also, Your Honor ruled that the Respondent shall file any response to Complainants motion, etc. not later than June 8, 2018.

- May 18, 2018 - Complainants served our Motion for Continuance to Enable Complainants Expert Witness to Participate in Our Hearing and Request to Allow Complainants Expert Witness Testimony by Telephone per Your Honor's May 10, 2018 Interim Order.
- June 4, 2018 - Complainants received a copy of Respondent's June 1, 2018 Answer to Motion for Continuance to Enable Complainants Expert Witness to Participate in Hearing and Request to Allow Complainants Expert Witness Testimony by Telephone.
- June 5, 2018 - Complainants received a copy of Respondent's June 4, 2018 Motion for Summary Judgment.
- June 6, 2018 - Complainants served our Response to Respondent's Answer to Motion for Continuance to Enable Complainants Expert Witness to Participate in Our Hearing and Request to Allow Complainants Expert Witness Testimony by Telephone.
- July 2, 2018 - Complainants received a copy of Your Honor's June 29, 2018 Interim Order and Cancellation Notice for the scheduled July 18 and 19, 2018 Evidentiary Hearing to allow proper review of Respondent's Motion for Summary Judgment and Complainants Response to that Motion.
- July 6, 2018 - After an agreed on an extension due to the massive size and complexity of Respondent's June 4, 2018 Motion for Summary Judgment, Complainants served our Response to Motion for Summary Judgment per Your Honor's June 29, 2018 Interim Order.
- December 4, 2018 - Complainants received a copy of Your Honor's November 30, 2018 Interim Order Denying Motion for Summary Judgment Filed by Duquesne Light Company.
- December 6, 2018 - Complainants received a copy of Your Honor's December 3, 2018 Interim Order to re-schedule the Evidentiary Hearing for some time in March or April 2019.

This motion and request is served to Your Honor, and copied to the Respondent as notification, in accordance with Commission Regulations.

3. With the submission of the massive and complex Motion for Summary Judgment by the Respondent, and the time that was necessary for the Complainants to fully respond to that Motion and for Your Honor properly review both filings, the scheduled Evidentiary Hearing, and its associated Litigation Schedule, was cancelled by Your Honor.

4. During this period and in light of a potential new Hearing date, Complainants did not sit idly by, and have continued to collect additional pertinent evidence in support of its Formal Complaint.

Complainants continued our search for recognized expert witnesses, who reside locally, who would be willing and available to provide expert testimony in-person on our behalf at our Hearing. To date, the Complainants have not been able to find and arrange for any appropriate local witnesses to appear.

Also, the Complainants continued our efforts to re-contact previous potential expert witnesses and various potential new expert witnesses who reside out of state to inquire as to their willingness and availability to provide expert testimony on our behalf at a Hearing, in light of a new Hearing date.

5. To our relief, our first expert witness, Dr. David Carpenter, MD, has indicated that he remains available, except for certain days and times, to participate by telephone at a Hearing to be held in March or April 2019. Complainants are currently collecting those dates and times to review with the Respondent's attorney, per Your Honor's December 3, 2018 Interim Order.

6. Furthermore, Complainants were fortunate to contact Dr. Andrew Michrowski, Ph'd, an internationally recognized expert on EMF technology and issues, who agreed to write an expert summary in support of our Formal Complaint and also agreed to participate as an expert witness in our behalf at a Hearing to be held in March or April 2019, as long as the Hearing does not conflict with his scheduled commitments. Complainants are currently

collecting those dates and times to review with the Respondent's attorney, per Your Honor's December 3, 2018 Interim Order. As such, Complainants wish to add Dr. Michrowski to our expert witness list.

Included with this motion are:

- Dr. Michrowski's written expert statement summary and intended testimony in support of the Complainants and our Formal Complaint. **[Exhibit A]**
- Dr. Michrowski's extensive curriculum vitae with his name, background, qualifications, and business address, per Commission requirements. **[Exhibit B]**
- The program synopsis of Dr. Michrowski's comprehensive EMF Workshops for health practitioners, architects, engineers, electricians, etc. which he has been teaching since 1991, at which education credits and certificates are granted to professionals who successfully pass the course examination. **[Exhibit C]**

If accepted by Your Honor, this filing with its 3 Exhibits serves as Complainants official expert witness notification of Dr. Michrowski to the Respondent, verified according to 52 Pa. Code § 1.36.

7. As a result of the Respondent's Motion for Summary Judgment filing, a new Hearing date is currently being scheduled for some time in March or April 2019, per Your Honor's December 3, 2018 Interim Order, along with an appropriately adjusted Litigation Schedule in keeping and in coordination with the new Hearing date.

Complainants have made every effort to comply with Your Honor's 2018 Litigation Schedule. The new Hearing schedule in 2019 is the sole consequence of the Respondent's concerted effort to contravene and circumvent the Complainants' Hearing with its massive and complex Motion for Summary Judgment. The Complainants should not be hindered from utilizing this additional time to further support its Formal Complaint.

8. The previously scheduled Hearing date of July 18 - 19, 2018 had the following associated Litigation Schedule timeline:

- Evidentiary Hearing date - July 18 - 19, 2018
- Stipulations by - July 9 (1 week before the Hearing)
- Exhibits Exchange by - June 29 (2 ½ weeks before the Hearing)
- Dispositive Motions by - June 4 (~ 5 weeks before the Hearing)
- Rebuttal Expert Testimony Notification by - May 18 (~ 8 weeks before the Hearing)
- Factual Testimony Notification by - April 30 (~ 11 weeks before the Hearing)
- Expert Testimony Notification by - April 30 (~ 11 weeks before the Hearing)
- Discovery Requests by - March 16 (~ 17 weeks before the Hearing)

Recall,

- Complainants filed for a Continuance to allow Dr. Carpenter's participation as an expert witness on our behalf on April 30. Your Honor granted the Continuance to allow Dr. Carpenter's participation in July, August, or September of 2018.
- Respondent filed its Motion for Summary Judgment on June 4, and Your Honor granted the Complainants until July 6 to file a full and complete response. Complainants complied with that ruling.
- Your Honor officially cancelled the July Hearing and Litigation timeline on June 29, to properly review the Respondent's Motion for Summary Judgment and the Complainants' Response.
- Your Honor denied the Respondent's Motion for Summary Judgment on November 30, and subsequently ruled that both the Complainants and Respondent prepare for, and confer on, a new Hearing and timeline scheduled for some time in March or April 2019.

Complainants are submitting Dr. Michrowski as a second expert witness on our behalf at this date and time, 12 weeks before the earliest date now being considered for our Hearing. This provides the Respondent with sufficient notification, and is well within the accepted pre-Hearing Formal Complaint Litigation Schedule timelines followed by the PA PUC.

9. As stated in previous filings and reiterated here again, the Complainants do not have the luxury of having expert witnesses on call, on retainer, or under contract, and readily available, to participate at any time, as does the Respondent. Independent experts have their own jobs, commitments, etc. Complainants have to seek these experts out, inquire if they are willing and able to participate, and then try to coordinate and facilitate their participation in a manner and according to a schedule that does not conflict with their commitments and the court.

The Complainants can only hope that Your Honor can understand and appreciate the difficulty of this task. All that the Complainants can do is assure Your Honor that we have tried to do this in as conscientious and efficient of a manner as was possible; but, there are many things that are simply not within our control.

10. The Respondent, Duquesne Light Company (DLC), is a publicly traded company with revenues ~ \$806,100,000, net income ~ \$69,600,000, total assets ~ \$2,209,200,000, and being represented Tucker Arensberg, Attorneys. The Respondent has hired two (2) industry representatives, Dr. Benjamin Cotts and Dr. Gabor Mezei, as expert witnesses against the Complainants.

The Complainants are two (2) elderly fixed income individuals, one (1) working full-time and one (1) retired, representing themselves *pro se*, who do not possess even a fraction of one percent of the revenues, net income, total assets, and resources available to the Respondent. The disparity here is pronounced. The Complainants do not have the staff, personnel, or resources that are readily available to the Respondent with regard to witness production, etc.

11. The PA PUC provides telephonic options to parties, as needed and requested, and as with Dr. Carpenter, the Complainants require and request the use of this telephonic option to facilitate the participation of Dr. Michrowski as an expert witness on our behalf.

**It would be cost prohibitive for the Complainants to pay for a qualified but far-removed witness to appear in-person, and would preclude the Complainants from having any expert witnesses at all. To expect that the Complainants, with our limited resources, would have to shoulder an excessive and unnecessary burden / expense for qualified witnesses who would be available to participate in our Hearing on our behalf is unfair and unreasonable, and is prejudicial against the Complainants and our complaint.**

**12. Complainant Francis Hriadil possesses engineering expertise. Complainant Michele Hriadil possesses computer science expertise. Dr. Carpenter possesses considerable expertise in the areas of environmental health effects and health risks associated with radiofrequency (RF) radiation exposure etc. associated with Smart Meters and other similar types of emitting devices, and is an internationally recognized health expert in this regard. Dr. Michrowski possesses considerable expertise in the technology, operation, and analysis of electromagnetic devices in the work, home, and living environments, and of Smart Meters in a Smart Mesh; teaches professional workshops on this technology and has done so since 1991; and is also an internationally recognized expert in this regard. If Dr. Carpenter and Dr. Michrowski are precluded from participating as expert witnesses in their areas of expertise, it will significantly impair the Complainants ability to meet our obligation, as stated by the PUC, to produce a preponderance of evidence in support of our Formal Complaint.**

**13. The Respondent possesses many distinct advantages in terms of experience, personnel, and resources in this Formal Complaint process which the Complainants cannot hope to match. The Complainants are seeking to present the full truth in this matter in as conscientious and comprehensive of a manner as possible, and to the best of our ability under the circumstances as they exist. If the objective of the Hearing is to get to the truth of the matters in question based on the latest independent scientific, medical, health, and governmental information that is available, in order to be able to make a valid and proper**

judgment concerning any violation of PA Utility Code § 1501, etc., then Dr. Carpenter's and Dr. Michrowski's participations are indispensable to fulfilling that objective. Unlike, the Respondent's two (2) hired expert witnesses, Doctors Cotts and Mezei, the Complainants two (2) expert witnesses, Doctors Carpenter and Michrowski are independent, not tied to any aligned and vested industry interests, and are volunteering their expert testimonies on our behalf, without compensation, because of their professional assessment and concern that this a matter that is of detrimental personal and physical consequence to the Complainants, and one that is in the public interest.

WHEREFORE, in light of these circumstances, Complainants Michele Hriadil and Francis Hriadil respectfully request that Your Honor rule to grant Dr. Michrowski's participation as a second expert witness on our behalf. And if so granted, and as Dr. Michrowski is located out of state and it would be cost prohibitive for the Complainants to produce him in-person, Complainants request that we be permitted to utilize the telephonic options that the PUC offers to facilitate his participation and testimony. Neither of these requests is unreasonable and they have been granted in other PA PUC Hearings.

Complainant's Certificate of Service has been filed with the Commission's Secretary, in accordance with Commission Regulations.

**VERIFICATION**

Per 52 Pa. Code S 1.36,

We, Francis Hriadil and Michele Hriadil, hereby state that the facts above set forth are true and correct (or are true and correct to the best of our knowledge, information and belief) and that we expect to be able to prove the same at a hearing held in this matter. We understand that the statements herein are made subject to the penalties of 18 Pa.C.S. § 4904 (relating to unsworn falsification to authorities).

Date: 12/10/2018                      12/10/2018

*Francis Hriadil*                      *Michele Hriadil*

Francis Hriadil

Michele Hriadil

Respectfully yours,

*Francis Hriadil*

Francis Hriadil  
(412) 779-3314  
331 Shady Ridge Drive  
Monroeville, Pennsylvania  
December 10, 2018

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PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU



**Planetary Association for Clean Energy, Inc.**

100 Bronson Avenue, Suite 1001

OTTAWA, Ontario K1R 6G8, Canada

(613) 236-6265 / fax: (613) 235-5876

[paceincnet@gmail.com](mailto:paceincnet@gmail.com) / [www.pacenet.homestead.com](http://www.pacenet.homestead.com)

*An international collaborative network of advanced scientific thinking*

NGO in Special Consultative status with the Economic and Social Council of the **United Nations** (ECOSOC)

November 30, 2018

For the attention of

**Pennsylvania Public Utility Commission**

400 North Street

Harrisburg, Pennsylvania 17120

The United States of America

and

**Judge Jeffrey Watson**

**PA PUC Pittsburgh Administrative Law Judge Office**

301 Fifth Avenue, Suite 220 / Piatt Place

Pittsburgh, Pennsylvania 15222

The United States of America

Regarding:

**Francis Hriadil and Michele Hriadil**

Docket # **C-2016-2571726**

(Formal complaint with the **PA PUC**, filed 10/1/2016

with regards to **Duquesne Light Company (DLC)**

installation of an **Itron/Centron Openway SK9AMI7** Smart Meter

in a Smart Mesh at 331 Shady Ridge Drive, Monroeville, Pennsylvania 15146,

The United States of America

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SECRETARY'S BUREAU

As President of the **Planetary Association for Clean Energy (PACE)**, I wish to bring to your considerations stemming from several decades of independent scientific research and of multi-disciplinary peer review into electromagnetic and other issues that appertain to this Docket.

Our organization was founded by **Senator Chesley W. Carter**, while Chair of the **Canadian Senate's Standing Committee on Health, Welfare and Science** as well as member of the **Senate Special Committee on Science Policy**. He and his colleagues considered electromagnetic field issues to be among the top 3 scientific and technological priority issues of national concern. They arranged for a comprehensive study by the **National Research Council** and **Queens University** on the biological effects of electromagnetic fields, especially microwaves, which were published in official reports

between 1971 and 1972. Like research was done by **Medical Research Council (MRC)** -replaced since 2000 by **Canadian Institutes of Health Research (CIHR)**, and by other facilities.

Results are confirmed and elaborated by **US National Toxicology Program /NTP** (per 2004 **US FDA** request).

From the mid-1980s, due to governmental high-level policy concerns, PACE organized specialists' conclaves, at pioneer international conferences, on electromagnetic issues involving scientists, engineers, MDs and agencies. It was the first to facilitate the in-depth examination of medical issues associated with environmental hypersensitivity (EHS) and to help develop realistic exposure guidelines and standards, accepted since in many circles, including the **European Union**. These initiatives also led to now-mainstream electromagnetic measuring instruments, protocols, procedures for monitoring & tracing technological errors. PACE worked with **Canada Mortgage and Housing Corporation (CMHC)** to examine electromagnetic fields in Canadian housing, including those with advanced SMART systems. PACE conducts surveys premises with advanced metering infrastructure (smart meters) since **Hydro Québec's** experimental run, years before their authorization by the provincial government's regulatory board (**Régie de l'énergie**) in 2011.

We have provided, and continue to do so, expert testimony with regards to electromagnetic field issues, including those associated with advanced metering infrastructure. This includes expert reports and opinions on relevant documents and the introduction of evidence, even "hearsay", as well as testimony via video link.

In our expert opinion, and based on monitoring that we have made with occupants with smart meters and their premises for several years, as well as assessment of the related and relevant medical evidence of some of these individuals, the complaint Docket is sufficiently credible, with the potential for proof of health concern effects, to reserve considerable risk of adverse affectation from the meter being deployed. Such risk has been observed to be cumulative to numerous factors associated with the premises of the occupants, and their surroundings. The adverse affectations from smart meters, such as the ones at issue in this Docket of Francis and Michele, have been noted, in our surveys, to accrue, furthermore, with those who are more vulnerable to injurious affectation due to age – infants, pregnancy and seniority (both Francis and Michele are elderly), chronic health (Francis has chronic conditions), and duration of occupancy. There are also other known risks of great concern: safety and fire hazards, including explosions, economic / insurance coverage such as standard exclusion from liability coverage for claims.

We are in a position to introduce at least two relevant documents in our file as well as some reports, if admissible. As required we may submit supporting information for this matter.

We are disposed to participate in the proceedings in a mutually acceptable manner.



---

Dr. Andrew Michrowski  
President

- EXHIBIT B -

Andrew Michrowski, Phd  
Curriculum Vitae

- Dr. Andrew Michrowski studied at the faculties of Architecture and Urbanism at the Politecnico di Milano, Milan, Italy,  
where he received his *Dott. Arch.* Degree with honours.
- He
  - has served with the Department of Indian and Northern Affairs  
as Chief Planner;
  - followed by senior positions with the Secretary of State of Canada  
as forecaster, analyst and program evaluator, including EMF issues;
  - is currently the President of the Planetary Association for Clean Energy (PACE),  
founded by Senator Chesley W. Carter, while Chair of the Canadian Senate's  
Standing Committee on Health, Welfare and Science, as well as member of the  
Senate Special Committee on Science Policy. He and his colleagues considered  
electromagnetic field issues to be among the top 3 scientific and technological  
priority issues of national concern.  
  
NGO in **Special Consultative status with the Economic and Social Council  
of the United Nations (ECOSOC)**
- He has authored such papers as,
  - "Solutions to the global environmental crisis"  
(Address at the **United Nations**).
  - "The electromagnetic dimension of indoor environments"  
(Proceedings: **5th International conference on Indoor Air Quality and  
Climate**; Toronto, 1990).
  - "Nuclear fuel waste management and disposal concept"
  - "Electromagnetic fields exposure and incidence of breast cancer"  
(Proceedings: **World Conference on Breast Cancer**; Ottawa, Ontario.  
July 26-31, 1999; also in *Explore for the Professional*.  
Volume 9(6). July, 2000.
  - "Practical EMF pointers"
- He has edited/co-edited such books as:
  - New energy technology,
  - Basis of electromagnetic hygiene,
  - Studying problems associated with video display systems,
  - The ELF factor: selected bibliography,
  - Emerging energy science  
(also developed into an electronic information database of same name),

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- VDT sources: the ELF factor, selected references,
- An ELF primer.
- He has served as Scientific Advisor/Consultant for:
  - national prime-time **NOVA** TV series, TV specials, and award-winning documentaries:
    - scientific advisor of national prime-time TV special Nikola Tesla - the forgotten genius,
    - special advisor to the producer of the film, The secret of Nikola Tesla (with Orson Welles),
    - scientific advisor for the award-winning (best United Kingdom documentary of the year) **BBC Horizon/NOVA** series production, The mysterious Mr. Tesla;
    - producer of the investigative TV documentary, The question of video display terminals.
  - international EMF organizations (South Africa, Netherlands) and their initiatives.
- Between 1993 and 1996, he headed  
the **Canada Mortgage and Housing Corporation (CMHC)** study team  
analyzing electromagnetic fields (EMF) in Canadian houses.
- In 2012, he developed the Safe Housing Guideline  
for the **Canada Mortgage and Housing Corporation (CMHC).**
- From 1980 - present (2018),  
EMF shielding, electric & hybrid car, and protective testing and evaluation  
for **Consumer Reports.**
- He has presented briefs
  - at the **United Nations (UN)**, Geneva and New York
  - at the **Royal Society of Canada**
- He
  - lectures before scientific and engineering societies
  - makes presentations on current scientific issues before concerned groups.
- Since 1991, he has been providing extended Workshops on EMF,  
some of which lead to certificates, with a view on enabling participants to identify  
and to mitigate EMF problems in the built environment.
- He has been and is a recognized legal EMF issues expert witness;  
expropriation electromagnetic field (EMF) affectation assessment reports.

[ <http://www.essentia.ca/Workshops/workshops.htm> ]

## Electromagnetic fields at home, at work WORKSHOP

*Characteristics, health effects, how to properly  
detect problem sources and identify effective mitigation*  
*Dr. Andrew Michrowski, instructor*

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**\$ 395** (minus \$25 per person, if 2 or more attending) + HST.  
*price reductions apply for advance payments, please inquire*  
Friday introductory only: **\$75** (minus \$25, 2 persons) + HST

### WHO SHOULD ATTEND?

**health practitioners, architects, engineers, electricians, the responsible laypersons willing to improve their lifestyle.**

**Electromagnetic spectrum; bioeffects:** electric, magnetic, electromagnetic fields; thermal/non thermal, linear/ non-linear effects; absorption characteristics; scalars; melatonin link;  
**symptoms** for types of exposure;  
**transmission & propagation of electromagnetic signals;** harmonics, transients, damping..., exposure situations; magnification and reduction;  
**guidelines** - their development; emerging regulations;  
**exposure hygiene:** who should be protected, at what age, where (school, bedroom, long-term usage, medical device usage);  
**wiring types,** code, grounding,  
**typical problems/inexpensive solutions;**  
**critical exposures:** workstation and therapy area environment; rural environments;  
**measuring equipment:** electrical, electrostatics/ion discrimination, magnetic (dosimeters, gaussmeters, single and multi-pole probe), static magnetic fields; RF & mw; ammeter; electrical resistivity;  
**protocol** and procedure; **tracing; geopathics** and health - situations and health effects;  
**hypersensitivity** - allergen link with electromagnetics;  
**subtle energy** interface;  
**interface of medication;** subtle energy therapeutics;  
**personal protection devices** - what to expect, rationale.

Friday evening session is introductory and for the general public;

Saturday, Sunday sessions are directed at professional training. (Your professional society may grant education credits for the workshop.)

Certificate issued, at request, upon successful exam.

## WORKSHOP SYNOPSIS

### Friday (introductory) 7 - 10 PM

**Electromagnetic spectrum;** its use by sector, mode of transmission as dependent on frequency and wavelength, dispersion; **Nomenclature:** Hertz, Tesla, Gauss, Watt/cm<sup>2</sup>. **Range of bioeffects:** electric, magnetic, electromagnetic; differentiation between thermal and non thermal, linear and non-linear; absorption characteristics; scalar electromagnetics; the melatonin connection. **Transmission & distribution:** wiring, transmission lines, antennae. **Concept of circuits. Voltage / amperage. Harmonics, transients,** beating of 2 or more frequencies  $[F_1 + F_2 = (F_1 + F_2) + (F_1 - F_2) / 30 + 10 = 40 + 20]$ . **How magnetic fields are magnified:** spacing of conduits (knob and tube wiring), loop circuits, re-radiation phenomena. **How magnetic fields may be reduced:** phasing, compacting wires; annulling; counteractors; "white noise" formula; shock bow effect / Faraday effect; absorption. **Type of situations encountered:** wiring configuration -- knob & tube, series, grounding wires, transmission lines, shielding with *MuMetal*. **Guidelines** based on independent European experience -- how developed in early

1980s. **New regulations** coming along: 2mG, preference for 1mG. **Exposure hygiene:** who should be protected, as of what age, where (school, bedroom, long-term usage). **Symptoms to look out for** (powerline frequencies: German statistics; for microwave: disorientation, incoherence immune system breakdown)

### **Saturday (practical) 9AM - 5PM**

**Basic wiring configurations:** panel, sub-panel (good & to avoid). **Electrical Code** grounding requirements. **Purpose of grounding systems.** **Mitigation:** sundry fields; water main problematics. re-grounding, transformer poles, some neighbourhood dynamics; isolation of critical areas - bedroom, etc. **Work environments & EMI** - classroom dynamics, farm environments (general and barns), supercomputer facilities.

### **Sunday (hands-on experience) 9AM - 5PM**

**Equipment:** electrical, electrostatics / ion discrimination, magnetic (dosimeters, gaussmeters, single and multi-pole probe), static magnetic fields; RF & MW; ammeter. **Protocol and procedure of analysis of situation** (indoor/outdoor, peripheral, walk through, profiles). **Tracing. Determination of panel-driven EMF. Balance equation of grounding returns:** neutral, grounding wire, TV, Cable. **Hands-on experience.**

## **Instructor: A. Michrowski**

Dr. Andrew Michrowski studied at the faculties of Architecture and Urbanism at the **Politecnico di Milano**, Milan, Italy, where he received his *Dott. Arch.* Degree with honours. He has served with the Department of **Indian and Northern Affairs** as Chief Planner, followed by senior positions with the **Secretary of State** of Canada as forecaster, analyst and program evaluator.

He has authored such papers as, *Solutions to the global environmental crisis* (Address at the **United Nations**), *The electromagnetic dimension of indoor environments* (5th International conference on Indoor Air), *Nuclear fuel waste management and disposal concept* and *Practical EMF pointers*. He has edited, co-edited such books as: *New energy technology*, *Basis of electromagnetic hygiene*, *Studying problems associated with video display systems*, *The ELF factor: selected bibliography*, *Emerging energy science* (also developed into an electronic information database of same name), *VDT sources: the ELF factor, selected references*, and *An ELF primer*.

He was scientific advisor of a national prime-time TV special, *Nikola Tesla - the forgotten genius*, special advisor to the producer of the film, *The secret of Nikola Tesla* (with Orson Welles), scientific advisor for the award-winning (best United Kingdom documentary of the year) **BBC Horizon/NOVA** series production, *The mysterious Mr. Tesla*; and, producer of the investigative TV documentary, *The question of video display terminals*.

He lectures before scientific and engineering societies and makes presentations on current scientific issues before concerned groups. Since 1991, he has been providing extended workshops, some of which lead to certificates, on EMF with a view of enabling participants to identify and to mitigate EMF problems in the built environment. Between 1993 and 1996 he headed the study team analyzing electromagnetic fields in Canadian houses for **Canada Mortgage and Housing Corporation**.

Please call for information on our next workshop in your area.

**MONTREAL** les 25, 26, 27 mars 2011

**TORONTO: Coming soon – please inquire**

**OTTAWA: Coming soon, with emphasize on Safe Building EMF guidelines / Building inspector protocols / upgrading certification levels – please inquire**

**VANCOUVER: Coming soon – please inquire**

Friday evening: from 7 - 10 PM / Saturday and Sunday: from 9AM to 5PM

## **ESSENTIA**

100 Bronson Avenue, # 1001

OTTAWA, Ontario K1R 6G8

(613) 238-4437 fax: (613) 235-5876

**For further information on this event,  
or to pay with Mastercard or VISA  
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Our complete electromagnetic survey service\* is provided throughout Canada. Reserve well in advance to arrange for convenient scheduling!

\* includes survey, report, recommendations, mitigation follow-up and consultation.

BEFORE THE  
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PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

Michele Hriadil and  
Francis Hriadil,

Complainant,

vs.

No: C-2016-2571726

DUQUESNE LIGHT COMPANY,

Respondent.

**CERTIFICATE OF SERVICE**

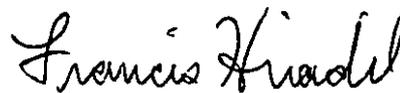
I hereby certify that I have this day served a true copy of the Complainants Motion to Allow a Second Expert Witness, Dr. Andrew Michrowski, Ph.d., for the Complainants, verified as per 52 PA. Code §1.36, upon the participants listed below in accordance with the requirements of 52 PA. Code §1.54 (relating to service by a participant):

*Via Paper Filing*  
Judge Jeffrey Watson  
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*Via Paper Filing*  
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Counsels for Respondent, Duquesne Light Company

Dated this 10<sup>th</sup> day of December 2018



Michele and Francis Hriadil  
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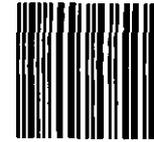
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**Rosemary Chiavetta, Secretary**  
**Pennsylvania Public Utility Commission**  
**400 North Street**  
**Harrisburg, Pennsylvania 17120**