

APEGA members and permit holders are required to practise engineering and geoscience skillfully, ethically, and professionally. They must meet all prescribed requirements and follow all applicable legislation and regulations, such as the *Engineering and Geoscience Professions Act, General Regulation,* Code of Ethics, and APEGA bylaws. Investigation and enforcement—followed by, when necessary, judgment based on a fair hearing of the facts—are requirements of ours in service to the public interest. For more information, please visit www.apega.ca/enforcement/discipline-decisions.

Date: August 24, 2021

Discipline Case Number: 20-008

IN THE MATTER OF A RECOMMENDED DISCIPLINE ORDER OF THE ASSOCIATION OF PROFESSIONAL ENGINEERS AND GEOSCIENTISTS OF ALBERTA

Pursuant to the Engineering and Geoscience Professions Act, being Chapter E-11 of the Revised Statutes of Alberta 2000 Regarding the Conduct of [A PROFESSIONAL MEMBER] P.ENG.

The Investigative Committee of the Association of Professional Engineers and Geoscientists of Alberta (APEGA) has investigated the conduct of a Registrant (the Registrant) with respect to allegations of unprofessional conduct and unskilled practice pursuant to section 44(1) of the *Engineering and Geoscience Professions Act*.

A. THE COMPLAINT

This investigation related to an allegation that the Registrant demonstrated a lack of judgment in the practice of the profession by virtue of recommending an undersized 840-foot buried cable to their client for a Solar PV installation.

The Investigative Committee investigated the following allegation outlined in the Complaint:

Allegation 1:

The Registrant displayed a lack of knowledge of or lack of skill or judgement in the practice of the profession by incorrectly recommending 3C-250MCM-ACWU cable to run power from the solar module inverters to the main service room.

The Investigative Committee investigated two (2) additional allegations outlined in the Complaint. The Investigative Committee determined that there was insufficient evidence of unskilled practice and/or unprofessional conduct in relation to the two (2) additional allegations.

B. AGREED STATEMENT OF FACTS



(i) Background:

- 1. The Registrant is an Electrical Engineer and has been a member of APEGA in good standing since June 2018.
- 2. The Registrant's consulting company is an APEGA Permit Holder in good standing.
- 3. The Complainant is the principal of a company specializing in residential and commercial solar photovoltaic (PV) installations.
- 4. The Complainant retained the Registrant in July 2018 to create a Single Line Diagram (SLD) for a PV installation on a farm near Taber, Alberta. The agreement was outlined in a contract dated August 10, 2018.

(ii) Facts Relating to Allegation #1:

- 5. The Complainant passed along the technical information (proposed PV design, existing service, transformers, switches, panels etc.) required by the Registrant to complete the SLD.
- 6. On August 24, 2018, the Registrant provided the Complainant with a not for construction SLD which the Complainant used for the purpose of obtaining permit and rebate from Fortis.
- 7. The Complainant and the Registrant continued to communicate about the project by text message. On November 8, 2018, the Complainant messaged the Registrant to request the specifications/sizing for the buried cable required to run the power from the solar module inverters to the main service room.
- 8. The Registrant confirmed that the Complainant purchased "3 Refusol 48K-L inverters", and one hour later he instructed the Complainant to use 3-conductor cable '3C-250MCM-ACWU' for the buried cable run.
- 9. The Complainant relied on the Registrant's cable recommendation. The Complainant instructed his electrician to purchase the cable the following day (November 9, 2018). The cost of the cable was \$6,233.61.
- 10. The Complainant immediately buried the cable on the same day (November 9, 2018).
- 11. The following day (November 10, 2018) the Registrant messaged the Complainant and advised them not to proceed with the cable installation:



"... please ask your electrician to not proceed yet with cable installation. I realized we have to ask some information to the inverter manufacturer as I realized we might need to make adjustments to the cable installation."

- 12. The Complainant advised the Registrant the cable was already in the ground.
- 13. The Registrant requested the Complainant to send photos of the installation and the receipt for the cable. The Complainant replied confirming that their electrician purchased the cable recommended by the Registrant: "AL –3Cx250 kcmil + Ground Teck 90-XLPE".
- 14. On November 12, 2018, the Registrant messaged the Complainant requesting the full specifications for the buried cable (temperature and insulation voltage).
- 15. On November 20, 2018, the Registrant messaged the Complainant and advised that no upgrade of the existing buried cable was required.
- 16. On November 27, 2018, the Registrant met with the Complainant. The Complainant learned the Registrant had instructed them to use an undersized 3-conductor cable. The Registrant advised the Complainant that an additional transformer would be required to increase the voltage to make up for the voltage drop of the undersized conductor. The additional transformer and switch increased the cost of the project for the Complainant.
- 17. The Registrant acknowledges that he incorrectly recommended the undersized 3-conductor cable before completing the design. In a rush to make a recommendation to the Complainant, the Registrant incorrectly assumed that the inverters were capable of a floating (delta-y) connection which would allow the use of a lower amperage 3-conductor cable rather than a 4-conductor cable.
- 18. After making the recommendation, however, the Registrant consulted with the inverter manufacturer and learned the inverters do not have the capability to allow a floating (delta-y) connection.
- 19. The Registrant acknowledges that they have learned from this experience; going forward, they will longer provide recommendations until the design is thoroughly researched and finalized.

C. CONDUCT BY THE REGISTRANT

20. The Registrant freely and voluntarily admits that at all relevant times they were a Professional Member of APEGA and was thus bound by the Engineering and Geoscience Professions Act and the APEGA Code of Ethics.



21. The Registrant acknowledges that the conduct described above constitutes unprofessional conduct as defined in Section 44(1) of the *Act*:

Section 44(1) Any conduct of a professional member, licensee, permit holder, certificate holder or member-in-training that in the opinion of the Discipline Committee or the Appeal Board,

- a) Is detrimental to the best interests of the public,
- *b)* contravenes a code of ethics of the profession as established under the regulations,
- c) harms or tends to harm the standing of the profession generally,
- d) displays a lack of knowledge of or lack of skill or judgement in the practice of the profession, or
- e) displays a lack of knowledge of or lack of skill or judgement in the carrying out of any duty or obligation undertaken in the practice of the profession

whether or not that conduct is disgraceful or dishonorable, constitutes either unskilled practice of the profession or unprofessional conduct, whichever the Discipline Committee or the Appeal Board finds.

The Rules of Conduct of the APEGA Code of Ethics state:

- 1. Professional engineers and geoscientists shall, in their areas of practice, hold paramount the health, safety and welfare of the public and have regard for the environment.
- 2. Professional engineers and geoscientists shall undertake only work that they are competent to perform by virtue of their training and experience.
- 3. Professional engineers and geoscientists shall conduct themselves with integrity, honesty, fairness and objectivity in their professional activities.
- 4. Professional engineers and geoscientists shall comply with applicable statutes, regulations and bylaws in their professional practices.
- 5. Professional engineers and geoscientists shall uphold and enhance the honour, dignity and reputation of their professions and thus the ability of the professions to serve the public interest.
- 22. The Registrant also acknowledges the conduct described above breaches Section 44(1)(d) of the *Act*; the conduct demonstrated a lack of judgement in the practice of the profession.

D. RECOMMENDED ORDERS

23. On the recommendation of the Investigative Committee, and by agreement of the Registrant with that recommendation, and following a discussion and review with the



Discipline Committee Case Manager, the Discipline Committee hereby orders that:

- a) The Registrant shall receive a Letter of Reprimand, a copy of which will be maintained in your APEGA registration file for three years.
- b) The Registrant shall pay a fine in the amount of \$1000.00 pursuant to s. 64(1)(b) of the *Act*. The fine shall be paid within 90 days of the date this Order is approved by the Discipline Committee Case Manager.
- c) The Registrant may apply to the Director of Enforcement for an extension prior to the 90-day deadline. If the fine is not paid within 90-days or after the agreed upon extension, the Registrant shall be suspended from the practice of engineering until the fine is paid in full.
- d) The Registrant shall disclose that they were the subject of APEGA disciplinary procedures to all other engineering regulatory bodies to which they holds membership and provide each regulator with a copy of this Order.
- e) The Registrant will be considered a Registrant in good standing while completing the above noted sanctions.
- f) This matter and its outcome will be published by APEGA as deemed appropriate and such publication will not name the Registrant.
- 24. Although the Investigative Committee and the Registrant understand and acknowledge that Recommended Orders should be published in a manner that identifies the Registrant by name, the parties understand that the decision to publish with or without name is discretionary. Publication without name is recommended in this case. The parties submit that publication without name is appropriate given the specific facts in this case, including the following considerations:
 - a) The admission by the Registrant of unprofessional conduct.
 - b) The Registrant's exemplary cooperation with the investigation.
 - c) The Registrants declaration to the Committee that they have learned from the situation, regrets their actions, and going forward will refrain from making recommendations until the design is finalized.
 - d) The Committee's finding that although the Registrant's conduct demonstrated a lapse in judgement, it was isolated and is unlikely to be repeated in the future.



e) There was no risk to public safety or the environment.

IN WITNESS WHEREOF the undersigned agrees with the Agreed Statement of Facts and Acknowledgement of Unprofessional Conduct in its entirety.

Signed,

[PROFESSIONAL MEMBER], P. Eng.

MR. R. SUDIPTO, P.Eng. Panel Chair, APEGA Investigative Committee

MR. JEFF PIEPER, P.Eng. Case Manager, APEGA Discipline Committee

Date: August 24, 2021