



Date: December 10, 2018

To: Interested Bidders

From: Steve Roy, P.E.
Senior Water Resources Engineer

Subject: **ADDENDUM #2** for Water Resources Arc Flash Assessment

This is Addendum No.2 for the City of Burlington, Water Resources Arc Flash Assessment, dated November 28, 2018. This Addendum forms a part of the Contract Documents and modifies the original Request for Proposals. This Addendum concludes our question period before the December 14th deadline for proposals. The following responses are to questions posed by an interested party.

QUESTIONS / CLARIFICATIONS / ADDITIONAL INFORMATION

1. Water Treatment Plant: For the 5kV Switchgear, does the City have accurate information on the fuses and conductors? If not, an outage would be needed to access the fuses and conductors to obtain the necessary data, is that possible to be scheduled? **We do not have accurate information on conductors and fuses. If necessary, an outage can be scheduled.**
2. Water Treatment Plant: For the 5kV Switchgear, does the City have test data for the ground fault relay and associated CTR? If not, an outage would be needed to obtain the CTR? Is that possible to be scheduled? **We do not have accurate information on the ground fault relay and CTR. If necessary, an outage can be scheduled.**
3. Water Treatment Plant: Are the large motor nameplates accessible? i.e. not located in a Confined Space? **All large motors are accessible.**
4. Scope of Work: Item #2: Determination of operating conditions. Will a knowledgeable operator be available for each facility to discuss normal conditions with a reasonable notification to meet? **Yes.**
5. Scope of Work: Item #4 references a protective coordination study. Does this include motor starters/contactors and overloads? **No.**

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6. Scope of Work: Item #5 references that the calculations shall comply with the latest edition of NFPA 70E and IEEE 1584. The current version of IEEE 1584 is 2002. It is expected that version 2018 will be released by the end of the year. The 2018 version is more comprehensive in the equations being used going from 3 equations to approximately 40 equations. These equations will be handled in the modeling software but there will be additional data collection required that is more extensive than the 2002 version. Additionally, the 125kVA transformer or less and below 240V exemption is being eliminated being replaced with a current cutoff for 240V and below. This will mean additional modeling. Since the bid is specifying that the calculations are to comply with the current IEEE 1584 standard, does the City of Burlington intend to allow the successful bidder an opportunity to revise the bid to accommodate the changes due to version 2018 being released after bids are submitted? **It is our understanding that IEEE 1584-2018 was formally released last week. Please plan on meeting its requirements.**
7. Scope of Work: Item #6, Installation of labeling. This only refers to electrical panels and MCC's. Are control panels, disconnect switches and other devices that may be serviced while energized (including testing for de-energized for LOTO) expected to be labeled also? **No, just panels and MCCs.**
8. Scope of Work: Item #7, submission of revised electrical drawings annotated with incident energy, etc. Is the City of Burlington expecting the one line drawings submitted as part of the bid package to be revised with requested information? Or is the one line developed for the model and analysis sufficient to meet this requirement? If not, are AutoCad files available for revising? **Computer model one-line diagrams are acceptable for record purposes. If this is not available, then make provisions to draft the submitted pdfs in AutoCad. Only the recently drafted water reservoir pump station is available in .dwg format.**
9. Scope of Work: Item #7, states that the required PPE is listed on the drawing. Since a study is being done to determine the actual incident energy levels, the PPE would be determined by the incident energy. NFPA 70E-2018 prohibits the use of the NFPA table categories when a study is done. If the City of Burlington wants a system of PPE levels or categories, this would have to be specific to the City's electrical safety program. What is the intention here for PPE on the drawings? **We were not aware of changes in NFPA 70E-2018. Please remove the PPE request from Item #7.**

End of Addendum