

Meeting Minutes from Toronto

Members: 15

Guests: 7

Guests who have attended the last two meetings and have requested membership: 3

New attendees: 11

Introductions

No patent issues

- Minutes were approved with one addition
 - Minutes were modified to show Circulating Current by Vector Analysis Method was discussed at the previous meeting. This method was discussed but additional information was requested by the membership before adding it as an approved method.
- Reviewed description of Circulating (Reactive) Current – a difference in the reactive current flow between two transformers and how to calculate it
 - Example(s) showing this method were reviewed and discussed.
 - Proposal was made to include an example of an example of circulating (reactive) current for 3 transformers
 - Members were requested to submit these additions in writing after the meeting so that we could stick to the agenda
 - Concerns over whether the name VAR balancing in the Circulating Reactive Current section presented a trademark or patent violation were raised. Motion was raised to remove the Var Balancing name from this section. Results of the vote:
 - 8 to remove
 - 3 to leave it in
- Several new or significant revisions were proposed by members. These revisions/additions are being discussed offline to determine the need for the additions and the proper language for the proposed changes. Among these are:
 - Current by Vector Analysis Method
 - Circulating current method vs circulating reactive current method and whether these methods are the same. Did not come to a consensus as to whether these methods are the same.
- Question was raised concerning the name of negative vs. reverse reactance
 - Allis Chalmers called it negative reactance
 - GE and Westinghouse called it Reverse Reactance
 - The rest of the world refers to this method as negative reactance
 - Name was left as is for now

- Document format concerns were discussed:
 - In a previous meeting, the decision was made to include vector diagrams in each method. Members were asked to review this proposal considering the information presently being included in each section. Are the vector diagrams for each method are unique enough that they need to be included with each method.?
 - Jim Graham has volunteered to reformat the document to ensure it complies with the IEEE format
 - Once the document has been reformatted, it will be sent to the members for review with the latest revisions
 - Referencing of other standards and using definitions provided in other standards. This is best done at the end of the document should this document be used by IEC.
 - Members liked the method presently being used to break the document into smaller sections when submitting to the committee for review/comment.
- Reviewed some of the sections and comments submitted to date by members
 - Encouraged all members to participate
 - Discussed proper method to submit comments
 - Discussed the best way to define the system configuration:
 - How do you define 2 or more transformers fed from a common high side bus?
 - In Europe this method is considered an In-line Arrangement
 - Briefly reviewed the first two sections of the document. Several recommendations were made on wording revisions. Asked members to formally submit these editorial changes.
 - Reviewed several paralleling examples
 - Maximizing the transformer loading
 - Master-Follower Method - do not need to have the same number of taps, only that the nominal size of the steps should be the same
- Members volunteering to prepare additional information for the guide are as follows:
 - Jim Harlow to review C57.12.70 for their definition of phasor groups and in particular how to define transformers using the “same” phasor group.
 - Sanjib Som will provide material for 4.1.1
 - Craig Colony- Cooper Power - volunteered to prepare sections regarding paralleling of regulators
 - Proposal was also made that this section should also address the differences between LTC tap change operations vs. regulator operations.
 - For example, LTC operations result in changes in the transformer impedance whereas regulator operations have very little impact on the impedance
- Motion to adjourn

Working group adjourned at 4:30pm.