September 26, 2005

To Whom It May Concern:

Attached you will find a second revision of the baseline and monitoring methodology proposals for NM112. Since we were unsure as to the status of our previous edits and did not want to presume they were accepted even though the reaction seemed positive, we used a highlight and italics to distinguish our most recent edits (the highlights did not appear in the PDF version, so that is simply in italics). The edits focused entirely on addressing the final two points the Methodology Panel seems to still seek clarification. The issues and our efforts to address them are summarized below.

The first issue the Methodology Panel summarized as number of historical years of data. The issue focuses on whether one of more years of historical data should be used to determine the baseline. As with every methodology prepared for this process, the project developer agrees the more years the better.

To this end, the project developer suggests every project developer should use three complete years of data if the data exists. This will address any concerns about year to year fluctuations. The project developer as per the suggestion of the Methodology Panel recommends that if it can be proved that three years of data do not exist the project developer can use at the bare minimum one complete year of data.

It is important to include this exception. If the data exists it will have to be used which avoids the concern expressed by the Methodology Panel of the project developer 'gaming' the system using the best combination of baseline data. However, especially in the least developed countries where accurate meters and data often do not existent, three years of data would greatly hinder the development of these types of CDM projects. Installing meters and then waiting 3 years before the improvement program could be implemented would not make sense. This should be allowed in cases where meters and data collection systems are being installed or upgraded as part of the project.

The second key point the Methodology Panel raises is as to the accuracy of the meters and calculations involved considering the relatively small percentage improvements being measured. First, it should be noted that the meters involved are typically accurate from plus or minus a tenth to a hundredth percent. We include in the QA/QC plan a requirement to calibrate all meters to meet the recommendations of the meter manufacturer.

In addition, our methodology asserts that for a specified "flow index", the power generated after DSS implementation will be greater than that generated before the implementation. To further alleviate the concerns towards precision of the methodology and whether it finding are statistically significant, the project developers have included a detailed derivation of the industry standard measurement of flow index. This overview will show that the data being used in its calculation is very straight forward and simple.

It is being gathered by very basic meters that offer highly accurate results typically to plus or minus a tenth or a hundredth of a percent of accuracy. Furthermore any deviation made in a baseline calculation, no matter how slight the chance, will be 100% consistent with the error made in the post-project calculations. The errors will therefore cancel each other out. To further clarify this point, the project developer has sought out and received concurrence from experts in no way connected to the project in Azerbaijan.

The index is determined as follows:

- MW output is measured at each unit and plant on a continuous basis
- Headwater level is also measured as above
- Tailwater level is measured
- Gross head is the difference between the last two bullets
- Flow through each generating unit is determined for each hour, based on the unit performance "hill diagram", which defines the three dimensional relationship between power output, head and flow (and associated efficiency). Flows are aggregated at all units and all plants in the cascade to yield the flow index.

These are very basic measurements, covered by meters that are typically highly accurate. However, it should be noted that in order to get an accurate and conservative result, the measurement of the flow index does not have to be accurate, as long as it is 100% CONSISTENT in the before and after cases.

Assume for now that a particular unit performance curve before DSS implementation is in error by x%, which implies that the calculated flow will also be in error. It should be noted that after DSS implementation, for the same flow, the error will be exactly the same, since the unit performance curve is the same. Therefore, the flow index will be 100% consistent between the before- and after-DSS cases.

The methodology developers hope that the combination of the points laid out above and the fact that this technology, and the accuracy of calculation of the benefits it is based on, is accepted, through direct purchases and internal reviews, by some of the top Canadian and European hydro companies will provide a strong level of confidence for the methodology panel to approve this methodology. We ask that given the relatively short list of comments and the long period between scheduled meetings, this methodology be reconsidered for approval at the upcoming meeting in October.

Best Regards,
Kevin James
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