

Pros and cons for Project Activities that reduce consumption of raw material, and where raw material cannot be ensured not to be produced

1. The issue was raised in the context of proposed new methodology NM0225, for project activities that reduce use of cement in the production of concrete by using cementitious materials as a replacement. Emission reductions are said to occur from decreased production of cement, which is caused by increased use of materials other than cement to make concrete. The reduction in consumption of cement is said, then, to lead to a proportional reduction in clinker production and consumption. The project proponents (PPs) procure cement from the market, so the reduction in cement/clinker production occurs at facilities other than those of the project activity. The project activity has similarity to those covered by existing approved methodologies ACM0005 (blending of cement with additives reducing clinker requirement) and ACM0015 (non-carbonate material is used in place of carbonate materials for production of clinker), but with the following differences:

- In project activities covered by ACM0005 the blending is done with the addition of additives at the point of cement manufacture, with direct, and instantaneous, implications for the PPs plant's CO₂ emissions;
- In project activities covered by ACM0015 the alternative raw materials are added for the purpose of clinker manufacture, which causes a reduction in the amount of carbonates being used in the clinker manufacture and, thus, also directly, and instantaneously, reducing PPs plant's CO₂ emissions.

2. The most prominent project activity where emissions are credited for upstream reduction of emissions (leakage emissions) is energy efficiency projects. Energy efficiency, in terms of reduced electricity consumption in a plant does, indeed *instantaneously* impact electricity generation. Although physically apart, emissions reductions do occur with electricity efficiency in a plant connected to a grid, because the point of usage of electricity is physically connected to the power plant and, as such, since electricity storage is normally not practiced, a causal relationship between electricity not used, and emission reductions, can be established.

3. The Board has approved a few other types of project activities that have similar characteristics: e.g. recovery of caustic soda in paper and pulp production, where emissions are claimed for reduced production of caustic soda; reduced consumption of urea fertilizer due to inoculation by nitrogen fixing bacteria, where the emission reductions are claimed for reduction in emissions from reduced urea production [A.A.1].

4. Key concern for such kind of project activities arises from the fact that emission reductions may be completely out of control of PPs, as they are assumed to occur as a secondary rather than a primary consequence of the project activity itself. As a result, the following issues can be flagged:

- Causality in this kind of project activities is difficult to establish, as the reduction in production of cement may not be instantaneous nor can it be easily verified;
- Estimation of emissions reduced is difficult, unless the source of cement production is included within the project boundary;
- Demonstration of additionality in such kind of activity is not easy; and
- The reduction in emissions in such situations can be claimed at both consumption and production points, and in this case double counting issues also need to be considered in such situations.

5. As mentioned before, the Meth Panel noted that some of these issues may be present in other project activities as well, and also identified that no generic solutions can be provided for such cases as the issues raised may have solutions based on specific situations.
6. The Panel recommends that this issue should be judged on a case-by-case basis, taking into account the above mentioned aspects.

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