Implications of ACM0013 on "GHG Emission Reductions through grid connected high efficiency power generation"

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The Stanford Environmental Law Clinic provides this analysis on behalf of CDM Watch considering the implications of the CDM Executive Board (Executive Board)'s revision of ACM0013 at its fifty-third meeting on CDM project "GHG Emission Reductions through grid connected high efficiency power generation" (Project 3020). Project 3020, though not yet registered, requested registration prior to the Executive Board's revision. As a result, it is not clear how the revised methodology applies to Project 3020. Because the Executive Board noted that the revision was necessary to ensure additionality, we would encourage its application to all projects not yet registered. Application of the revised ACM0013 reveals that Project 3020 is not additional.

Generally, a revised methodology under the CDM is phased in through a grace period prior to implementation, but here the Executive Board made the extraordinary decision to give its revision to ACM0013 immediate effect because the methodology as written was likely to generate non-additional CERs. The question is whether this revision applies only to projects requesting registration after March 25, 2010, or also to Project 3020, which requested registration on February 23, 2010, but falls within the specific problem identified—and ostensibly corrected—by the Executive Board.

The Executive Board revised ACM0013 to close a loophole through which project participants could claim emission reductions by "substituting" fuels within the same category (e.g., domestic coal for imported coal). The revised ACM0013 clarifies that it only applies to reductions achieved by installing more efficient power generation technologies than business as usual. As the Chair of the Meth Panel observed, this revision will protect the CDM by preventing the issuance of "artificial" CERs.

The Executive Board has not yet registered Project 3020, but the implications of its forthcoming decision loom large. If registered today, Project 3020 would generate 2.65 million CERs per year, making it the third largest non-HFC23 project ever registered under the CDM. If these "reductions" are not real or additional, 2.65 million CERs a year will flood the CDM market and undermine the Kyoto Protocol.

Our analysis shows that Project 3020 would be non-additional under the revised ACM0013. While Project 3020 is proposed as a supercritical coal project with a subcritical coal baseline, the additionality of the project rests solely on whether project participants can take credit for emission reductions achieved by "switching" domestic for imported coal. When these fuel source differences are neutralized, the supercritical project option (i.e., the project itself) is the most financially attractive baseline scenario. Accordingly, under the revised ACM0013, Project 3020 should not generate CERs.

We reach this finding of non-additionality in two steps: (1) by considering project participants' investment analysis for imported coal alternatives; and (2) by adopting

conservative assumptions, specifically identified by the project participant and confirmed by its DOE (i.e., DNV), yet ignored in the PDD's final investment analysis.

Project 3020's identified baseline—subcritical technology with domestic coal—must be rejected because it violates ACM0013's prohibition on fuel switching within the same fuel category. Restricting project participant's investment analysis to imported coal alternatives initially implies that subcritical technology using imported coal should be the new baseline. However, the difference in LCOE between the subcritical and supercritical alternatives is small. Reasonable assumptions for coal prices eliminate this differential.

As coal prices increase above project participant's assumptions, supercritical technology is revealed as the true baseline. Project participants assumed that imported coal from Indonesia would cost 25% less than the spot price of coal available on the open market, and used the promise of cheaper coal in their investment analysis. Far from conservative, this assumption unduly favors the less efficient alternative—subcritical technology—as the project's baseline. This outcome is assured because more efficient supercritical technology becomes more financially attractive only as coal prices rise.

While the PDD's investment analysis relies on low prices for Indonesian coal, both the project participant and its DOE note that these prices are unlikely to persist. The DOE states that "The global increase in demand of coal will lead to increase in coal prices by the coal exporting countries like Indonesia."[1] The project participant recently declared that it would not bid on further "ultra-mega power plant" imported coal projects (like Project 3020) in India because of rising coal prices, including from Indonesia.[2]

Applying the spot price of coal to Project 3020—a reasonable and conservative assumption—shows that supercritical technology is the most financially attractive baseline scenario. To reach the spot price, we must increase the project participant's assumed price by 33%.[3] Further, by extending the project participant's sensitivity analysis, we can see that supercritical technology would be the most financially attractive baseline scenario among imported coal projects if coal prices increased by at least 28% above project participant's assumption. Because the spot price for coal is already higher than this rate (i.e., 33% versus 28%), we can conclude that supercritical technology is the most financially attractive baseline scenario under reasonable and conservative assumptions. Supercritical technology would remain the most financially attractive baseline after modest decreases below the spot price as well as any increases above it.

Accordingly, we conclude that Project 3020 is not additional. To reach this proper result and prevent non-additional CERs, we urge that the revised ACM0013 apply.

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[1] DNV, VALIDATION REPORT: GHG EMISSION REDUCTIONS THROUGH GRID CONNECTED HIGH EFFICIENCY POWER GENERATION IN INDIA, REPORT NO. 2008-0362, Rev. No. 05, at 20.

[2] Indonesian shock for Indian power plants, *Rediff.com*, 21 Oct. 2009, *available at* http://business.rediff.com/report/2009/oct/21/indonesian-shock-for-indian-power-plants.htm; No imported coal-based UMPPs: Tata Power, *Business Standard*, 24 Sep. 2009, *available at* http://www.business-standard.com/india/news/no-imported-coal-based-umpps-tata-power/371097/.

[3] According to the PDD, Indonesian coal (I) was assumed to cost 25% less than the spot price of coal (S). So, I = 0.75 * S. Solving for S, S = 1.33 * I.