



CDM Executive Board
UNFCCC Secretariat
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24 June 2011

Subject: Request for Review of the Additionality of CDM Project 4533: *Greenhouse Gas Emission Reductions Through Super Critical Technology – Coastal Andhra Power Ltd., India*

Dear Mr. Hession,

We are writing to express our serious concerns about the proposed Project Activity 4629: *Greenhouse Gas Emission Reductions Through Super Critical Technology - Coastal Andhra Power Ltd., India*. The project sponsor claims that the use of supercritical coal technology will generate emissions reductions against a baseline of subcritical technology. However, the project activity is not additional under CDM rules and should not be eligible for CDM support.

The *Validation Report* fails to properly apply CDM rules in a number of critical areas. The deficiencies in the *Validation Report* could have a significant adverse impact on the CDM process: if registered, this Project could receive 12,346,977 CERs that do not represent additional emissions reductions, and could give the project participant an undeserved windfall on the order of € 148 million (based on current CER prices). Moreover, TÜV Nord, the DOE, has an extensive record of remarkably lenient review of validation requests, having validated over 90 percent of the projects it has considered.¹

For these reasons, the Executive Board should closely scrutinize this request for registration to ensure that it receives the kind of rigorous, objective review necessary to protect the integrity of the CDM process. As the deadline for requesting review is **3 July 2011**, we trust that you will take our concerns seriously and initiate a review as soon as possible.

Specifically, the Executive Board should review the additionality claims and the baseline assumptions of the project activity in light of the following:

1. The Government of India has required this project to use supercritical technology.

¹ http://cdmpipeline.org/does_2.htm



2. The project does not depend on CDM support to proceed using supercritical technology; it has already secured all the necessary financing, and is well under way. The Executive Board has previously refused to register a similar Indian supercritical plant on these grounds (3020).
3. The project sponsor's communications with its shareholders confirm that the project is not additional—the sponsor has unequivocally informed its shareholders that Coastal Andhra “will employ supercritical technology,” and considers CDM to be “a new revenue stream for the Company.”
4. The project sponsors failed to evaluate alternative tariff structures that would enable the project to achieve a better rate of return without CDM support. The Executive Board has already refused to register a similar Indian supercritical plant on these grounds (3020).
5. The sensitivity analysis improperly advantages inefficient subcritical technology by employing a baseline assumption for the price of coal that is far too low, and using an unrealistically narrow range of fuel price variation.
6. The project sponsor should have evaluated other alternative baseline scenarios such as improved end-use efficiency, demand side management, reduction of transmission and distribution losses, and combinations of these alternatives.
7. Subcritical coal technology is not the proper baseline in India under *ACM0013*.

Discussion

1. The Government of India has required this project to use supercritical technology. Under CDM rules, a project cannot be additional if it is “the only alternative amongst the ones considered by the project participants that is in compliance with mandatory regulations...”² Here, the Government of India's Request for Proposal (RfP) mandated that “the Units shall be based on supercritical technology.”³ Accordingly, the *Validation Report* properly concluded that “the project developer is required to implement the project with super critical technology only.”⁴ This stipulation is *not* contingent upon the receipt of CDM credits.⁵ It is difficult to see why the project nevertheless received a positive validation: since the use of supercritical technology is required by the Government of India, the project cannot be said to generate additional emissions reductions, and the positive validation was inappropriate under CDM rules.

² *Tool for the demonstration and assessment of additionality, Ver. 5.2, Annex: Guidance on the Assessment of Investment Analysis*, at 5.

³ See, Central Electricity Regulatory Commission, Petition 128/2010; paragraph 22, 25, available at http://www.cercind.gov.in/2010/ORDER/July/signed_order_in_Pet_No_128-2010.pdf

⁴ TÜV Nord, 2011. *Validation Report for the CDM Project Activity: Greenhouse Gas Emission Reductions Through Super Critical Technology – Coastal Andhra Power Ltd. (Validation Report)*, at 93, 99.

⁵ *Id.*



2. The project does not depend on CDM support to proceed using supercritical technology, as it has already secured all the necessary financing, and is well under way. The Executive Board has previously refused to register a similar Indian supercritical plant on these grounds. Coastal Andhra has already secured all the necessary financing to proceed with the project activity,⁶ and makes no claim that this financing is contingent upon the registration of the project under the CDM.⁷ As such, it cannot show that the CDM support is essential for the project to move forward using supercritical technology.⁸ The Executive Board has already refused to register another Indian supercritical project in very similar circumstances. In its review of the “*GHG Emission Reductions through grid connected high efficiency power generation (3020)*,” the Executive Board concluded that the project participant and the DOE had failed to substantiate barriers to investment in the project, because the project participant had secured financing after the project start date, but did not “clearly indicate that the lenders have taken into account the CDM registration of the project activity.”⁹ The same rule should apply here.

Moreover, implementation of the project with supercritical technology is already well under way. Coastal Andhra ordered and financed supercritical boiler, turbine and generator (BTG) packages for the facility in October 2010, along with BTG packages for 36 other units.¹⁰ Coastal Andhra has also purchased the land for the facility, commenced construction of the plant and of resettlement housing,¹¹ and purchased Indonesian coal mines to supply the facility.¹² Coastal Andhra’s actions to implement the project in advance of validation or registration demonstrate that they do not need CDM support to implement this project.

3. The project sponsor’s communications with its shareholders confirm that the project is not additional—the sponsor has unequivocally informed its shareholders that Coastal Andhra “will employ supercritical technology,” and considers CDM credits to be “a new revenue stream for the Company.” If CDM support really was essential for the project activity to move forward using supercritical technology, one would expect that Reliance Power, the owner of Coastal Andhra, would have informed its shareholders of this contingency. In fact,

⁶ http://www.reliancepower.co.in/1100/2_102.pdf; *Validation Report*, at 56.

⁷ *Id.*

⁸ See, *Review of Project Activity: Hot air generation using renewable biomass fuel for spray drying application at H. & R. Johnson (India) Ltd, Kunigal (1545)*, available at <http://cdm.unfccc.int/Projects/DB/TUEV-SUED1200568517.44/Rejection/DYSTHYWLL9HIB9ELS1BBWMTPUZIEPE> (project proponent must show that the benefits of the CDM were a “necessary element” of the decision to invest in order to prove additionality).

⁹ *Review of Project Activity: GHG Emission Reductions through grid connected high efficiency power generation (3020)*, available at <http://cdm.unfccc.int/Projects/DB/DNV-CUK1254830678.73/Rejection/TWNNWJIB1G6WAG6F9RW59N3AOLQEXP>

¹⁰ http://www.bseindia.com/xml-data/corpfiling/AttachHis/Reliance_Power_Ltd_281010.pdf

¹¹ Reliance Power, *Annual Report 2008-2009*, at 16.

¹² http://www.reliancepower.co.in/business_areas/power_projects/coal_based_projects/krishnapatnam.htm



Reliance's recent Annual Reports contain no such disclosures. Both the 2008-09 and 2009-10 Annual Reports inform shareholders that Coastal Andhra "will employ super-critical technology", yet neither report warns them that (1) the choice of supercritical technology may be contingent upon CDM support; (2) the project activity cannot go forward without CDM credits; or (3) the failure to have the project registered would pose any material financial risk to the project.¹³ Indeed, the "key risks and concerns" section of the Annual Reports never mentions the necessity of securing CDM support for this (or any other) project.¹⁴ Where the Annual Report does discuss the CDM, it is only to tout the sale of CERs as "*a new revenue stream for the Company.*"¹⁵ (emphasis added).

Thus, at the same time that Reliance seeks to convince the Executive Board that CDM support is critical to move forward, it is telling its shareholders a vastly different story—that the project will definitely use supercritical units, that there are no material risks to the project if it does not receive CERs, and that any CERs it receives will be a new profit center for the company.

4. The project sponsors failed to evaluate alternative tariff structures that would enable the project to achieve a better rate of return without CDM support. The Executive Board has already refused to register a similar Indian supercritical plant on these grounds. By failing to consider alternative tariff structures that would improve the project's returns without the use of CDM revenue, the project sponsor failed to meet its obligation to fully consider the "project without CDM support" as required by the *Additionality Tool*.¹⁶ The project proponent and DOE refused to evaluate other tariff structures on the grounds that the tariff they considered was the basis of the winning bid proposal.¹⁷ Indeed, the *Validation Report* makes clear that the project proponent used the possibility of CDM support to subsidize its proposed tariff rate so it could outbid its competitors, not to catalyze additional emissions reductions.¹⁸ The Executive Board has previously declined to register a proposal by another Ultra-Mega Power Plant on these grounds. In its *Review of the Project Activity (3020): GHG Emission Reductions through grid connected high efficiency power generation*, the Executive Board concluded that the project proponent had not demonstrated additionality because it "had not considered a tariff that would

¹³ Reliance Power, *Annual Report 2009-2010*, at 6, available at http://www.reliancepower.co.in/1104/7_102.pdf; Reliance Power, *Annual Report 2008-2009*, at 16, available at http://www.reliancepower.co.in/1104/1_102.pdf.

¹⁴ Reliance Power, *Annual Report 2009-2010*, at 18-19, available at http://www.reliancepower.co.in/1104/7_102.pdf; Reliance Power, *Annual Report 2008-2009*, at 14, available at http://www.reliancepower.co.in/1104/1_102.pdf.

¹⁵ Reliance Power, *Annual Report 2009-2010*, at 24, Reliance Power, *Annual Report 2008-2009*, at 18.

¹⁶ *Tool for the demonstration and assessment of additionality, Ver. 5.2, Annex: Guidance on the Assessment of Investment Analysis*, at 5.

¹⁷ *Validation Report*, at 103.

¹⁸ *Validation Report*, at 103, 105 fnt. 42.



enable it to achieve its ROE benchmark and implement the project activity without considering CDM revenues....¹⁹ The same rule should apply here.

5. The sensitivity analysis improperly advantages inefficient subcritical technology by employing a baseline assumption for the price of coal that is far too low, and using an unrealistically narrow range of price variations. The sensitivity analysis must consider future coal prices within a “realistic range of assumptions,” as determined by project circumstances and past trends.²⁰ However, the PDD and *Validation Report* assume a baseline cost of coal for the project of US\$23/ton, even though Coastal Andhra has actually signed contracts for Indonesian sourced coal for \$28.28/ton (a 23 percent increase over the baseline).²¹ Moreover, the contract price is actually far below the rates that Coastal Andhra is likely to pay for this coal. The Government of Indonesia recently issued an order harmonizing the price of exported coal with international rates.²² This order will apply retroactively to all contracts, and will likely increase the price of imported coal for Coastal Andhra and other coastal Indian coal plants by \$30/ton.²³ If that is the case, Coastal Andhra’s fuel costs will have risen over 150 percent over the assumed baseline even before commencement of operations.

Despite all of this, the PDD and *Validation Report* use an unrealistically narrow price variation of +/-10% (from the already implausibly low baseline) in the sensitivity analysis. In addition to the fact that current prices already exceed this range, Asian coal markets have recently been subject to high price volatility due to surging demand and a high correlation with oil prices, raising a significant risk that prices will rise even further.²⁴ Given these trends, the +/-10% range is inappropriate and inconsistent with CDM rules. More realistic baseline costs and variation would likely show that that supercritical plants are more financially attractive than plants with lower efficiencies.²⁵

¹⁹<http://cdm.unfccc.int/Projects/DB/DNV-CUK1254830678.73/Rejection/TWNNWJIB1G6WAG6F9RW59N3AOLQEXP> , See also, *Final Ruling Regarding the Request for Registration of Rincon Verde LFGTE Project (3432)* (“The DOE has failed to substantiate additionality of the project activity, in particular, the suitability of ... the electricity tariff assumed in the PDD... The (insufficiently justified) tariff is a significant component in determining the additionality of the project activity, and with a 10% increase in the electricity tariff, the IRR for the project activity crosses the benchmark”)

²⁰ *ACM0013*, Ver. 4.0, at 4; *Tool for the demonstration and assessment of additionality*, Ver. 5.2, at 7, 15.

²¹ *Validation Report*, at 98.

²² http://www.dnaindia.com/money/report_indonesian-nightmare-for-tata-adani-jsw-lanco_1554313

²³ *Id.*

²⁴ IEA Coal Statistics, 2010; <http://sierraclub.typepad.com/.a/6a00d83451b96069e20147e1433ebb970b-pi>; UBS, 2011. *Global Utilities Outlook 2011*, at 10.

²⁵ MIT, 2007. *The Future of Coal*, at 19.



6. The project sponsor should have evaluated other alternative baseline scenarios such as improved end-use efficiency, demand side management, reduction of transmission and distribution losses, and combinations of these alternatives. The Government of India Planning Commission's *Integrated Energy Policy* recognizes that "lowering energy intensity through higher efficiency is equivalent to creating a virtual source of untapped domestic energy...[a] unit of energy saved by a user is greater than a unit produced, as it saves on production losses as well as transport, transmission and distribution losses."²⁶ Accordingly, the Planning Commission found that "[s]everal [energy efficiency] options are less expensive than coal or gas-based generation, and therefore, *should be the "first resource" considered for fulfilling demand.*"²⁷ (emphasis added). Towards this end, "efficiency power plants"-- i.e., bundled sets of energy efficiency programs that can deliver the energy and capacity equivalent of a large conventional power plant-- should have been considered on the same basis as supply alternatives in the baseline scenario analysis.²⁸ Recent studies have found that end-use efficiency improvements could reduce effective demand by more than 20 percent,²⁹ and add approximately \$500 billion to India's economy between 2009 and 2017.³⁰ Similarly, reducing transmission and distribution losses also offers enormous opportunities to displace the need for new supply, and is a top government priority.³¹ Current loss rates are between 35-40 percent,³² and simply raising Indian transmission and distribution efficiencies to international best practices (less than 10 percent)³³ could eliminate the need for as much as 30 GW worth of additional capacity.³⁴ In accordance with the *Additionality Tool*, the project proponent should have assessed these alternatives, alone and in combination.³⁵

²⁶ Planning Commission, 2006. *Integrated Energy Policy: Report of the Expert Committee*, at xx.

²⁷ Planning Commission, 2011. *Interim Report of the Expert Group on Low-Carbon Strategies for Inclusive Growth*, at 31.

²⁸ See, e.g., the World Bank's recent support for mass distribution of compact fluorescent light bulbs in Bangladesh. http://siteresources.worldbank.org/EXTENERGY2/Resources/ELIB_Presentation.pdf. Meg Gottstein, Planning, Financing and Building Efficiency Power Plants: Regulatory Practices in California and Other States, The Regulatory Assistance Project (2008), available at www.raponline.org; David Moskovits, Meeting China's Energy Efficiency Goals Means China Needs to Start Building Efficiency Power Plants (EPP), The Regulatory Assistance Project (2005), available at www.raponline.org.

²⁹ Greenpeace India. 2009. *Still Waiting*, at 14. available at <http://www.greenpeace.org/india/Global/india/report/2009/11/stillwaiting.pdf>

³⁰ Shakti Foundation, 2011. *The Hundred Billion Dollar Bonus: Global Energy Efficiency Lessons from India*.

³¹ International Energy Agency; *Technology Development Prospects for the Indian Power Sector*, at 69. available at http://www.iea.org/papers/2011/technology_development_india.pdf

³² Planning Commission, 2006. *Integrated Energy Policy: Report of the Expert Committee*, at 4.

³³ Greenpeace India. 2009. *Still Waiting*, at 14. available at <http://www.greenpeace.org/india/Global/india/report/2009/11/stillwaiting.pdf>

³⁴ Shankar Sharma, 2011. *Indian Power Scenario: Huge scope for low carbon energy pathway*.

³⁵ *Additionality Tool*, at 4.



7. Subcritical coal technology is not the proper baseline in India under ACM0013. Supercritical technology has become the technology of choice for new large-scale coal fired power plants in India, and therefore is a more appropriate baseline than subcritical technology. India is already rapidly deploying supercritical technology--as of 2010, India had 37 supercritical units between 660 MW and 800 MW under construction, with a combined generating capacity of 26 GW.³⁶ According to the *Validation Report*, 50 supercritical plants are either in implementation or planning.³⁷ Supercritical units will continue to gain market share without CDM support due to operational advantages, rising coal prices, and government policies. Reliance has placed a massive US\$10 billion order for 42 units of 660MW supercritical BTG packages, making it clear that Reliance, like other power providers, intends to rely heavily in supercritical technology going forward.³⁸

Conclusion

Based on these concerns, we respectfully request that the Executive Board review the request for registration. We are confident that after a rigorous examination of the Project documents the Executive Board will reject the registration of the proposed Project.

Respectfully submitted,

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³⁶ International Energy Agency, 2011: *Technology Development Prospects for the Indian Power Sector*, at 46. available at http://www.iea.org/papers/2011/technology_development_india.pdf

³⁷ *Validation Report*, at 108.

³⁸ http://www.bseindia.com/xml-data/corpfilings/AttachHis/Reliance_Power_Ltd_281010.pdf,
<http://dengruo.info/201010/8-29-billion-u-s-dollars-overseas-shanghai-electric-sign-the-largest-contract/>