



restore the balance

**Climate Action Reserve
Livestock Project Protocol Draft Version 3.0
TerraPass Comments – August 27, 2010**

Thank you for the opportunity to comment on the revised version of the Climate Action Reserve Livestock Project Protocol. We appreciate the effort and transparency that The Reserve has committed itself to in developing and improving these protocols, and especially commend the work CAR has done to reduce the verification costs for these relatively small projects.

TerraPass is a leading retailer of carbon offsets to consumers and small businesses. Over the past three years, we have developed a specialized practice in the analysis of livestock methane collection and destruction projects and their opportunities for carbon credits. We have analyzed dozens of US dairies for their carbon credit potential, and conducted detailed due diligence, validation, or verification work on more than a dozen. Our comments reflect this body of experience, and hope they will be useful to you as you improve the livestock protocol.

Please feel free to contact me if you require any additional details.

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Livestock Project Protocol Draft Version 3.0 Comments

Section 5.2, page 22: Venting events relevant to Equation 5.7 are exceedingly rare, and under virtually no circumstance should planned maintenance result in a significant venting event of methane (gas in the header space would be evacuated to destruction devices). The equation proposed in this new version of the protocol would only be relevant to a catastrophic system failure of the digester.

In typical digester operation, venting events may occur either in parts of the digester system designed for emergency venting (e.g. at a pressure shut-off valve) or in parts of the digester which are malfunctioning (e.g. an unlit flare). In such cases, the Reserve's Livestock Protocol typically accounts for these losses through other variables or mechanisms (e.g. the Collection Efficiency rating and from the conservative use of the lesser of baseline minus project emissions vs. metered reductions).

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While the proposed equation makes sense in specific circumstances it does not seem appropriate for most venting events encountered in typical digester operations. For that reason we recommend that The Reserve allow for more flexibility in calculating and estimating these venting events by adding the word “catastrophic” in the following places, and removing reference to maintenance-caused venting:

Although not common under normal digester operation, it is possible that a *catastrophic* venting event may occur due to failure of digester cover materials, the digester vessel, or the gas collection system, ~~or due to a planned maintenance event~~. In the event that a *catastrophic* system failure ~~or planned operation~~ results in the venting of biogas, the quantity of methane released to the atmosphere shall be estimated according to Equation 5.7 below.

Section 7, page 39: The original language in the leading paragraph of Section 7 “Reporting Parameters” remains unchanged, though proposed updates to the verification cycle detailed later in the Protocol (Section 7.3) alter this requirement. For consistency, the sentence should read:

Project developers must submit project monitoring reports to the Reserve annually at a minimum, though verified emission reduction reports may be submitted less frequently (as described in Section 7.3).

Section 7.3, page 41: We commend and support the work The Reserve has done to explore ways of reducing the costs of verifications for small projects like dairy farms and other livestock operations. TerraPass’ experience with many livestock projects around the country suggest that often the most additional projects, bear a disproportionate financial burden in verifying relatively small numbers of offsets rendering many small offset projects not cost effective. This section and other ongoing work to reduce the cost burden on small projects will help many more small projects reach completion.

Section 7.3.1, page 41: Our experience with livestock offset projects suggests that the first year of operation is often lower performing (both in terms of offset project requirements and digester operation) than subsequent years. This is because the implementation of a much more complicated manure management system is often accompanied by flaws in the digester design, monitoring process, and metering equipment, which are subsequently identified and corrected. By requiring that the initial verification period not exceed 12 months, The Reserve creates a situation where it is highly likely that a limited number of CRTs will be verified and registered during the costliest verification period (first-time verifications are typically more expensive than subsequent verifications). This runs against the intended purpose of the verification cycle options offered by The Reserve in the proposed protocol, where verification costs can be lowered with longer cycles.

We recommend that The Reserve allow that the initial reporting period be up to 24 months. The cost of verification for that initial period would then be more likely to scale appropriately with the number of available CRTs.