PROJECT REVIEW REPORT

This document tracks the findings raised in Verra's review of the project specified below. The VVB must address the findings before the project request can be considered by Verra for approval. The document will be made publicly available on the Verra Registry. Confidential information may be provided as separate attachments.

Review Type	Verification
Project ID	1446
Project Name	Sichuan Furong Coal Mine Methane Utilization Project
Program(s)	VCS
Verification Period	01 January 2013 – 31 December 2017 (First and Last dates included)
Project Proponent	Sichuan Furong Group's Limited Industrial Company
Methodology	ACM0008 "Consolidated baseline methodology for coal bed methane, coal mine methane and ventilation air methane capture and use for power (electrical or motive) and heat and/or destruction by flaring or catalytic oxidation", Version 04
VVB	Shenzhen CTI International Certification Co., Ltd
Assessment Criteria	VCS Version 4
Date of First Issue	11 July 2022
Review Conclusion	3 August 2022
Date of Final Issue	3 August 2022

FINDINGS

#	Description	Response	Status
1	**Missing information on flow meters used** **Issue** Page 27 of the Monitoring Report shows a diagram with at least two flow meters installed in each mine (one located at the inlet pipeline and another one at the pipeline emergency vent valve), while page 21 of the Monitoring Report only describes the information of one flow meter at each mine (including their replacements). **Action item** The VVB must request the project proponent to include the information related to all the flow meters used in the project activity. **Program rule(s) or methodology section** VCS-Monitoring Report Template v.4.1., Section 4.2	**Round1**: VVB Response: The verification team confirmed via on site visit that the information related to flow meters at the pipeline emergency vent valve were included the monitoring report other than the flow meters monitoring the methane sent to CMM power plant. The methane in volume sent to CMM power plant is equal to the CMM from the pumps subtract the vented CMM. But the readings of gas flow meters which were installed at the emergency vent valves are zero, which means that the emergency evacuation valves before the gas generators were not used, so no CMM was vented during the monitoring period. The only extreme situation that will lead to the open of emergency vent valve is that all generators in a power plant are simultaneous unexpected failed. However, with the improvement and experience accumulation of operation and maintenance, and the application of computer monitoring and control system, no this kind of extreme situation has been occurred in the operation period of the project. The flow meters information installed at the pipeline emergency vent valve was included in the updated MR and verification report. Verra Review: The requested information on the meters located at the emergency vent valve were included in the revised monitoring report. The finding is closed and no further action is required.	Closed
2	**Missing monitoring of CMM supplied to grid** **Issue** The registered PDD, equation 10, requires monitoring any CMM supplied to the gas grid or for vehicle use. However,	**Round1**: VVB Response: Page 58-60 of the registered PDD demonstrate that there are enough extracted CMM, the thermal energy demand to CMM in the baseline will not be overlapped by the project activity.	Closed

the monitoring report does not include the results of these monitoring parameters. **Action item** 1) The VVB must request the project proponent to include in the monitoring report, the results of the monitored CMM supplied to the gas grid or for vehicle use during the monitoring period. 2) Given that part of the CMM was already burned by the end-users in the baseline scenario, the VVB shall further explain why it is considered conservative that the baseline emissions from the CMM utilized by residential users through the gas grid are not considered, instead of being discounted from the baseline emissions. **Program rule(s) or methodology section** VCS-Monitoring Report Template v.4.1., Section 4.2	And page 36-37 of " Post Registration Changes for Prior Approval, Validation Opinion" issue by ERM CVS (refer to the Sichuan Furong_CMM_PRC Opinion_09Sept13_signed.pdf in the VERRA Registry) used the data between 16/04/2010-31/12/2012 to review and assess that there have no potential overlap between CMM usage in the baseline and power generation in the project activity. CMM that would have been captured, sent to gas grid and destroyed by combustion end use in the baseline scenario, $CMM_{BL\ y}$, was ex ante determined and listed as B.6.2. Data and parameters fixed ex ante of the registered PDD(page 32). the applied value see Appendix 4, Table 2.1 and Table 2.2(page 58-59 of the registered PDD). the the total CMM extracted by the project activity was provided by the project owner, CTI reviewed and assessed the total CMM extracted by the project activity, the methane sent to the CMM power plants during this monitoring period and the maximum thermal generation demand based on 2003-2007 five-year historical data (CMMBL,y, tCH4) and further analyzed CMM gas extraction and consumption for the two separate gas distribution systems separately, in order to provide a more reliable verification of potential overlap between CMM usage in the baseline and power generation in the project activity. The reviewed and assess analysis please refer to Annex I, Comparison of the CMM extracted but not used against the baseline thermal demand, attached in the document. From the comparison, the methane extracted from Baijiao, Shanmushu and Gongqu but not used by project.are much higher than the baseline demand, thus, no overlap occurred. So, that part of the CMM was already burned by the end-users in the baseline scenario can be considered as zero as per page 38 of the registered PDD. Verra Review: The VVB clarified that the implementation of the project does not affect the baseline consumption of the CMM, given that the volume of methane extracted from the mines is much higher than the baseline demand. The finding is closed and no further action is required.

3	**Missing leakage assessment** **Issue** The monitoring report does not include information on the assessment of leakage. **Action item** The VVB must request the project proponent to include an assessment of whether the project activity prevents methane from being used to meet baseline thermal energy demand. **Background information** The PD states that in the baseline scenario, a small portion of the extracted CMM is utilized by residential users through the gas grid. Thus, please refer to the requirements of section 5.4 of ACM0008 v.04 regarding the displacement of baseline thermal energy uses since leakage may occur if the project activity prevents CMM from being used to meet baseline thermal energy demand. **Program rule(s) or methodology section** Revised registered PDD page 30 para.3.1 ACM0008 v.04, section 5.4	**Round1**: VVB Response: According to the page 39 of the registered PDD and page 36 of validation report, the leakage is 0. Furthermore, as the reply of question 2, there is no overlap between CMM usage in the baseline and power generation in the project activity, the leakage is zero. Verra Review: The VVB confirmed that the CMM usage in the baseline is not affected by the implementation of the project activity. The finding is closed and no further action is required.	Closed

ANNEX I Comparison of the CMM extracted but not used against the baseline thermal demand

period	CMMpj at Baijiao, tCH4	CMMpj at Shanmushu, tCH4	CMMpj at Gongquan, tCH4	MMElEc at Baijiao CMM plant, tCH4	MMElEc at Gongquan CMM plant, tCH4	MMElEc at Shanmushu CMM plant, tCH4	Methane extracted from Baijiao and Shanmushu but not used by project, tCH4	Methane extracted from Gongquan but not used by project, tCH4	CMMBLY at Shanmushu, Xunchang and Baijiao tCH4*	CMMBLY at Gongquan tCH4*	Methane extracted from Baijiao and Shanmushu but not used by project/CMMBLY at Shanmushu, Xunchang and Baijiao	Methane extracted from Gongquan but not used by project/CMMBLY at Gongquan
	A	B	C	D	E	F	F=A+B-D-F	G=C-E	H	I	J=F/H	K=G/I
01/01/2013-31/01/2013	691.70	1411.33	690.77	353.42	224.24	0	1749.61	466.53	224	46.0	7.81	10.14
01/02/2013-28/02/2013	681.92	1264.74	592.00	273.97	255.79	0	1672.69	336.21	244	57.0	6.86	5.90
01/03/2013-31/03/2013	735.15	1184.98	536.54	384.11	202.5	0	1536.02	334.04	260	42.0	5.91	7.95
01/04/2013-30/04/2013	905.65	1153.33	547.71	322.85	256.92	0	1736.13	290.79	208	39.0	8.35	7.46
01/05/2013-31/05/2013	706.97	1704.43	709.27	550.02	221.21	0	1861.38	488.06	213	47.0	8.74	10.38
01/06/2013-30/06/2013	604.39	1200.22	844.42	484.68	358	0	1319.93	486.42	205	65.0	6.44	7.48
01/07/2013-31/07/2013	474.05	1573.01	919.86	192.9	350.4	0	1854.16	569.46	202	36.0	9.18	15.82
01/08/2013-31/08/2013	681.00	1422.21	834.05	137.94	364.75	0	1965.27	469.30	180	43.0	10.92	10.91
01/09/2013-30/09/2013	622.17	1424.39	867.01	274.82	166.53	117.57	1654.17	700.48	197	63.0	8.40	11.12
01/10/2013-31/10/2013	905.34	1675.87	803.38	439.11	343.32	103.21	2038.89	460.06	207	30.0	9.85	15.34
01/11/2013-30/11/2013	124.66	1635.54	740.22	192.82	301.26	178.11	1389.27	438.96	226	43.0	6.15	10.21
01/12/2013-31/12/2013	1110.91	780.41	729.61	342.78	255.4	169.15	1379.39	474.21	241	42.0	5.72	11.29
01/01/2014-31/01/2014	677.59	987.21	655.53	317.95	290.12	193.19	1153.66	365.41	224	46.0	5.15	7.94
01/02/2014-28/02/2014	607.76	1144.61	556.83	153.22	211.01	226.89	1372.26	345.82	244	57.0	5.62	6.07
01/03/2014-31/03/2014	789.32	1352.42	470.11	375.63	143.44	186.49	1579.62	326.67	260	42.0	6.08	7.78
01/04/2014-30/04/2014	900.72	1230.75	659.60	572.76	263.56	251.81	1306.90	396.04	208	39.0	6.28	10.15
01/05/2014-31/05/2014	699.61	1393.18	867.72	503.78	372.07	209.08	1379.93	495.65	213	47.0	6.48	10.55
01/06/2014-30/06/2014	604.39	1579.85	908.76	172.39	292.86	189.48	1822.37	615.90	205	65.0	8.89	9.48
01/07/2014-31/07/2014	609.47	1773.83	815.72	486.39	245.48	253.75	1643.16	570.24	202	36.0	8.13	15.84
01/08/2014-31/08/2014	755.96	1484.04	799.30	357.6	340.78	165.91	1716.49	458.52	180	43.0	9.54	10.66

01/09/2014-30/09/2014	692.72	1581.91	1054.71	151.47	179.63	154.95	1968.21	875.08	197	63.0	9.99	13.89
01/10/2014-31/10/2014	841.32	1564.15	860.77	366.11	270.9	155.99	1883.37	589.87	207	30.0	9.10	19.66
01/11/2014-30/11/2014	1076.58	1666.11	726.64	423.75	379.94	184.8	2134.14	346.70	226	43.0	9.44	8.06
01/12/2014-31/12/2014	1278.15	1621.40	666.16	378.49	215.55	161.72	2359.34	450.61	241	42.0	9.79	10.73
01/01/2015-31/01/2015	656.41	1547.91	697.82	264.46	269.36	196.96	1742.90	428.46	224	46.0	7.78	9.31
01/02/2015-28/02/2015	601.50	1224.80	609.59	182.37	244.17	193.15	1450.78	365.42	244	57.0	5.95	6.41
01/03/2015-31/03/2015	789.32	1223.62	526.32	321.84	311.02	254.89	1436.21	215.30	260	42.0	5.52	5.13
01/04/2015-30/04/2015	789.13	1083.96	576.40	464.35	202.73	227.45	1181.29	373.67	208	39.0	5.68	9.58
01/05/2015-31/05/2015	780.62	1216.22	694.18	287.19	189.52	181.77	1527.88	504.66	213	47.0	7.17	10.74
01/06/2015-30/06/2015	641.01	1564.80	844.42	465.37	231.88	147.7	1592.74	612.54	205	65.0	7.77	9.42
01/07/2015-31/07/2015	558.21	1673.42	859.11	453.52	184.56	237.07	1541.04	674.55	202	36.0	7.63	18.74
01/08/2015-31/08/2015	654.71	1422.21	894.86	401.19	206.69	188.78	1486.95	688.17	180	43.0	8.26	16.00
01/09/2015-30/09/2015	718.38	1614.53	929.57	310.57	234.87	234.98	1787.36	694.70	197	63.0	9.07	11.03
01/10/2015-31/10/2015	859.61	1643.95	770.59	332.55	320.98	317.46	1853.55	449.61	207	30.0	8.95	14.99
01/11/2015-30/11/2015	1212.57	1559.11	699.47	340.21	306.67	364.27	2067.20	392.80	226	43.0	9.15	9.13
01/12/2015-31/12/2015	1206.48	1508.60	615.41	301.38	256.7	385.48	2028.22	358.71	241	42.0	8.42	8.54
01/01/2016-31/01/2016	719.94	1487.21	655.53	291.14	174.4	366.93	1549.08	481.13	224	46.0	6.92	10.46
01/02/2016-28/02/2016	576.44	1371.24	562.69	483.7	220.34	353.73	1110.25	342.35	244	57.0	4.55	6.01
01/03/2016-31/03/2016	735.15	1236.50	521.21	322.15	218.45	436.35	1213.15	302.76	260	42.0	4.67	7.21
01/04/2016-30/04/2016	765.22	1185.59	588.29	509.29	278.25	341.8	1099.72	310.04	208	39.0	5.29	7.95
01/05/2016-31/05/2016	773.25	1437.65	799.81	218.27	259.18	363.01	1629.62	540.63	213	47.0	7.65	11.50
01/06/2016-30/06/2016	634.91	1414.34	844.42	407.27	230.98	282.42	1359.56	613.44	205	65.0	6.63	9.44
01/07/2016-31/07/2016	569.60	1773.83	850.43	265.73	282.33	226.95	1850.75	568.10	202	36.0	9.16	15.78
01/08/2016-31/08/2016	620.96	1514.96	842.74	486.46	296.51	291.98	1357.48	546.23	180	43.0	7.54	12.70
01/09/2016-30/09/2016	635.00	1712.38	1001.08	440.65	328.67	272.07	1634.66	672.41	197	63.0	8.30	10.67
01/10/2016-31/10/2016	941.91	1548.19	770.59	389.29	255.84	541.13	1559.68	514.75	207	30.0	7.53	17.16
01/11/2016-30/11/2016	1155.90	1620.25	726.64	191.01	211.73	276.79	2308.35	514.91	226	43.0	10.21	11.97
01/12/2016-31/12/2016	1278.15	1395.81	640.78	476.7	280.84	353.66	1843.60	359.94	241	42.0	7.65	8.57
01/01/2017-31/01/2017	677.59	1396.16	676.68	397.13	333.4	464.8	1211.82	343.28	224	46.0	5.41	7.46
01/02/2017-28/02/2017	645.36	1344.61	556.83	327.34	288.75	405.45	1257.18	268.08	244	57.0	5.15	4.70
01/03/2017-31/03/2017	750.62	1352.42	541.65	214.8	191.82	391.19	1497.05	349.83	260	42.0	5.76	8.33
01/04/2017-30/04/2017	725.36	961.38	606.11	573.57	238.19	149.11	964.06	367.92	208	39.0	4.63	9.43

01/05/2017-31/05/2017	743.79	1467.29	731.90	414.49	252.52	168.37	1628.22	479.38	213	47.0	7.64	10.20
01/06/2017-30/06/2017	573.86	1549.76	560.50	275.95	176.49	356.42	1491.25	384.01	205	65.0	7.27	5.91
01/07/2017-31/07/2017	609.47	1606.48	693.82	494.36	307.76	331.97	1389.62	386.06	202	36.0	6.88	10.72
01/08/2017-31/08/2017	715.46	1638.63	825.36	371.92	283.92	468.49	1513.68	541.44	180	43.0	8.41	12.59
01/09/2017-30/09/2017	596.51	1663.46	911.70	300.94	283.22	373.87	1585.16	628.48	197	63.0	8.05	9.98
01/10/2017-31/10/2017	859.61	1627.99	754.20	442.18	223.66	281.2	1764.22	530.54	207	30.0	8.52	17.68
01/11/2017-30/11/2017	1189.90	1390.97	699.47	451.35	274.78	456.06	1673.46	424.69	226	43.0	7.40	9.88
01/12/2017-31/12/2017	1170.64	1381.71	615.41	290.71	231.05	383.84	1877.80	384.36	241	42.0	7.79	9.15

*. the data is from page 58-59 the registered PDD