



ANNEX F

INVESTIGATION REPORT

| Investigation Report of CEMS Exceedances |  |
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| Date                                     | 1 – 31 December 2023   |
| Time                                     | Continuous Monitoring throughout December 2023   |
| Monitoring Location                      | Continuous Environmental Monitoring Systems (CEMS)   |
| Parameter                                | Various emission parameters of Cogeneration Units (CHPs) and Ammonia Stripping Plant (ASP)   |
| Exceedance Description                   | <p>1. Continuous monitoring was carried out at the CAPCS, CHP and ASP throughout the reporting period using the CEMS. According to the EM&amp;A Manual, exceedance is considered if the emission concentration of the concerned pollutants is higher than the emission limits stated in Tables 2.2, 2.3 and 2.5 of the EM&amp;A Manual (Version F) for CAPCS, CHPs and ASP respectively. The concentrations of the concerned air pollutants were monitored on-line by the CEMS. Exceedances of various emission parameters were recorded on the CEMS including:</p> <ul style="list-style-type: none"> <li>• NO<sub>x</sub>, SO<sub>2</sub>, and HCl from CHP1;</li> <li>• NO<sub>x</sub> and SO<sub>2</sub> from CHP2; and</li> <li>• NO<sub>x</sub>, SO<sub>2</sub>, NH<sub>3</sub>, and HCl from ASP.</li> </ul> <p>2. The Contractor has investigated the cause of the exceedances and identified that:</p> <ul style="list-style-type: none"> <li>• The exceedances of NO<sub>x</sub>, SO<sub>2</sub>, and HCl from the CHPs, as well as the exceedances of NO<sub>x</sub>, SO<sub>2</sub>, NH<sub>3</sub>, and HCl from ASP occurred due to system instability.</li> </ul> |
| Action Taken / Action to be Taken        | The Contractor investigated the reason for the exceedances and arranged Remedial Works and Follow-up Actions (see below).  |
| Remedial Works and Follow-up Actions     | The Contractor had arranged the CHP supplier to inspect, analyse and improve CHP and ASP performance in January 2024 based on final reports of the quality assurance level 2 test (QAL) for the CEMS calibration. This QAL2 evaluation is still ongoing, and improvement recommendation will be provided once the final report is received.  |

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