**Solution Requirements (Functional & Non-functional)**

Date: 26 June 2025

Team ID: LTVIP2025TMID32000

Project Name: Sustainable Smart City Assistant Using IBM Granite LLM

**Functional Requirements**

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| **FR No.** | **Functional Requirement (Epic)** | **Sub Requirement (Story / Sub-Task)** |
| FR-1 | Policy Document Summarization | User uploads policy document, AI returns simplified, readable summary. |
| FR-2 | Eco Tips Generator | User inputs sustainability topic, AI generates actionable eco tips. |
| FR-3 | KPI Forecasting | User uploads KPI dataset, system provides forecasted resource usage. |
| FR-4 | Anomaly Detection | User uploads resource data, system highlights unusual patterns. |
| FR-5 | Chat Assistant | User asks sustainability or governance questions, AI provides responses. |

**Non-functional Requirements**

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| **NFR No.** | **Non-Functional Requirement** |
| NFR-1 | Usability – Intuitive and accessible Streamlit dashboard. |
| NFR-2 | Security – Environment variables (.env) for secure API key handling. |
| NFR-3 | Reliability – Stable integration of Watsonx Granite LLM and Pinecone. |
| NFR-4 | Performance – Fast AI response times, minimal system latency. |
| NFR-5 | Scalability – Cloud-ready architecture with containerization support. |