**Software Quality Assurance Plan (SQAP)**

**Energy Transition Simulator**

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**Revision History:**

| **Date** | **Update(s)** | **Version** | **Author** |
| --- | --- | --- | --- |
| 2024-10-08 | Initial draft, title page, revision history, TOC | v0.1.0 | Daniel Thompson |

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**1. Introduction**

**1.1 Purpose**

The purpose of this Software Quality Assurance Plan (SQAP) is to define the quality assurance activities, responsibilities, and processes required to ensure the high quality of the Energy Transition Simulator. This project aims to develop a simulator that allows users to input economic, policy, and market variables related to energy transitions and generate financial and strategic insights based on simulated outcomes. The SQAP ensures that quality control measures are followed throughout development, including unit testing, integration testing, and system testing.

**1.2 Scope**

The Energy Transition Simulator will enable users to run scenario analyses, generate financial models, and receive strategic recommendations on energy transition strategies. The key modules include a user interface (UI), a simulation engine, a financial modeling module, and a strategic insights module. This SQAP covers the quality assurance processes for all modules, ensuring consistency, reliability, and accuracy of results.

The project will be developed by **EliteTech Solutions** in accordance with a contract with **Tech Innovations Ltd.**. The scope includes both functional and non-functional quality standards to ensure the simulator’s performance, security, and usability.

**2. Terms and Definitions**

1. **SQA** (Software Quality Assurance) - The activities ensuring the software meets specified quality standards throughout its lifecycle.
2. **UI** (User Interface) - The interface through which users input variables and view simulation outputs, including charts and tables.
3. **Scenario Analysis** - A method of analyzing possible future events by considering alternative possible outcomes (scenarios).

**3. Reference Documents**

1. [IEEE 730-2014] IEEE Standard for Software Quality Assurance Processes.
2. Project Contract between **EliteTech Solutions** and **Tech Innovations Ltd.**.

**Version History:**

Version number: **v0.1.0**  
Summary: Initial draft of the Software Quality Assurance Plan for the Energy Transition Simulator project.