# Siemens Task 1 Example Answer

Entrepreneurship (Kenyatta University)

SIEMENS

# Metroville Urban Rail Expansion Project - KPI Development Template

## Technical Feasibility KPIs

### KPI 1:

**KPI Name:** Monthly Track Installation Progress
**Definition (What it measures):** This KPI measures the amount of track installed each month against the planned schedule, expressed as a percentage.
**Measurement Method (How data will be gathered and calculated):** Data on installed track length will be collected from construction reports, divided by the planned track length for the same period, and then multiplied by 100 to get a percentage.
**Rationale (Why this KPI is important):** Monitoring installation progress ensures the project remains on schedule and identifies delays early.

### KPI 2:

**KPI Name:** Electrification Infrastructure Completion Rate
**Definition (What it measures):** Tracks the completion of essential electrification infrastructure components, like substations, against project milestones.
**Measurement Method (How data will be gathered and calculated):** Compare the number of completed electrification components to the total planned amount, presenting it as a completion percentage.
**Rationale (Why this KPI is important):** Ensures timely progress on electrification, critical for the rail system's operational efficiency and sustainability.

## Environmental Sustainability KPIs

### KPI 1:

**KPI Name:** Carbon Emissions Reduction

**Definition (What it measures):** Quantifies the reduction in carbon emissions due to fewer cars on the road attributed to increased rail usage.
**Measurement Method (How data will be gathered and calculated**): Estimate the reduction in vehicle miles traveled (VMT) using ridership data, then calculate the equivalent reduction in carbon emissions using standard emission factors.
**Rationale (Why this KPI is important):** Highlights the environmental benefits of the project, supporting Metroville's sustainability goals.

### KPI 2:

**KPI Name:** Green Space Around Stations
**Definition (What it measures):** Measures the square meters of new or improved green spaces around rail stations.
**Measurement Method (How data will be gathered and calculated):** Sum the area of all green spaces created or enhanced as part of the station designs.
**Rationale (Why this KPI is important):** Enhances community livability and biodiversity, aligning with environmental and social objectives.

## Community Acceptance KPIs

### KPI 1:

**KPI Name:** Community Engagement Index
**Definition (What it measures):** Evaluates the level of community involvement in the planning process through feedback and participation metrics.
**Measurement Method (How data will be gathered and calculated):** Track the number of public submissions, attendance at community meetings, and engagement on digital platforms, creating an index based on these inputs.
**Rationale (Why this KPI is important):** Ensures the project aligns with community needs and preferences, fostering public support.

### KPI 2:

**KPI Name:** Improved Transit Connectivity
**Definition (What it measures):** Assesses the increase in multimodal transit connections made possible by the new rail lines.
**Measurement Method (How data will be gathered and calculated):** Count the number of new connections established between the rail system and other modes of transportation post-expansion.
**Rationale (Why this KPI is important):** Reflects the project's success in enhancing Metroville's overall transit ecosystem and accessibility.