

### About Aecon Group Inc.

Aecon Group Inc. is a prominent Canadian construction and infrastructure development company. Aecon's Construction segment works with private and public-sector clients in the Civil, Urban Transportation, Nuclear, Utilities and Industrial sectors.

#### Sustainability at Aecon Group Inc.:

**E:** Aecon strives to continuously improve its environmental performance and minimize waste, greenhouse gas (GHG) emissions, and other environmental impacts.

**S:** Aecon released its inaugural Reconciliation Action Plan and established new Indigenous-led joint ventures.

**G:** Aecon promotes ethical business practices throughout its supply chain, the work has expanded to include preferred suppliers to achieve a 100% completion rate for ESG screening.

### Industry Trends

#### Challenges:

- 1) Supply chain disruptions
- 2) Lack of skilled labour with advanced knowledge and skillsets
- 3) Maintaining profitability with rising costs for business operations
- 4) ESG compliance pressure.

#### Opportunities:

- 1) Government support and incentives
- 2) Technology advancement, such as the rise of AI
- 3) Growing demand for green infrastructure
- 4) Long-term cost savings by integrating energy-efficient practices and sustainable materials into construction practices.

### Major Projects & Roles

#### Double Materiality Assessment (DMA)

- Researched background information regarding the DMA at Aecon and sector-specific sustainability topics from international standards like the GRI and the SASB
- Benchmarked sustainability topics against peer companies to aid in developing an initial list of material topics (see the graph at right)
- Designed a materiality survey to collect stakeholders' perspectives on the importance of topics
- Developed and documented the detailed approach for assessing the impact and financial materiality of topics, and aggregating results into a materiality matrix, in compliance with the European Financial Reporting Advisory Group (EFRAG) standard
- Formulated and delivered a comprehensive double materiality assessment work plan to guide the future administration of the DMA at Aecon

Environment	Environmental Management and Compliance Biodiversity and Ecosystem Management Climate Change Management: GHG Emissions Life Cycle Impacts of Projects Sustainable Water Management Waste and Material management
Social	Health and Safety Diversity and Equal Opportunity Indigenous Relations Postive Social Impact to Communities Human Rights and Responsible Labour Practices Training and Education
Governance	Sustainability Strategy Responsible Supply Chain Business Ethicity and Integrity Innovation Risk & Opportunity Management Economic performance

#### Anti-Idling Analysis and Solutions

- Analyzed edited data to create graphs showcasing the distribution of idling fuel consumption by each equipment type and by each business unit
- Researched effective anti-idling technologies and recommended two specific technologies for Aecon to implement on its most idling-intensive vehicles.
- Estimated expected fuel and emission savings from implementing these technologies based on scientific calculations and reliable coefficients
- Calculated expected costs for implementing these technologies, including an average expected return on investment over a time frame to assist decision-making
- Presented findings to the team leader and addressed questions and concerns using data from calculations

#### Technological anti-idling solution 1

• **Auxiliary Power Units (APUs):** APUs are designed to power electrical systems, heating, air conditioning, and other onboard amenities during rest periods or when the vehicle is stationary. This helps in reducing idling-related fuel consumption and emissions.

#### • Benefits of implementation for Aecon:

By implementing APUs in 50% of passenger vans and Haulage support cube vans, Aecon would save approximately 40,392.84 litres of Diesel, CAD 60,589.27 from fuel savings, and 108,253.82 kg CO2 Emissions.



### Skills and Knowledge Gained

- **The European Financial Reporting Advisory Group (EFRAG) standard for DMA implementation.**
- Challenges and opportunities faced by the infrastructure construction industry.
- Communicate effectively in a way that is most valuable to target audiences.
- Take the initiative to think in others' shoes regarding what is most important for them.
- Manage projects through scheduling, tracking milestones and utilizing resources.
- **Make a business case to assist decision-making**, backed by numbers that come from data analysis and scientific calculations.

### Key Take Aways

- **Effective Communication** is vital – Articulating clearly and making a business case for sustainability is essential to gaining stakeholders' support.
- **Project management skills**, including time management, task organization and scheduling are invaluable in all workplace settings.
- **Take confidence** in your work – Remain confident in your abilities and trust your ideas. Don't be afraid to be creative with ideas and suggestions, take initiative to go above and beyond and think outside the box.