

## **Memo**

**To:** Annie Anthony, CFO

**From:** Alan Howard, Owen Tatlonghari, Svetozar Hristov

**Date:** 03/21/2025

**Subject:** ESG Project Evaluation – Analysis and Recommendations

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### **Introduction**

In this memo, we will address the various questions outlined in your request, providing a detailed analysis of the ESG project under consideration. Our group has evaluated the potential business opportunity and the financial implications of the project, incorporating both quantitative and qualitative factors. Below is an outline of the questions I will address in this memo.

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### **1. What is your qualitative assessment of Liz's current and prospective business? Was Liz well positioned for success?**

Liz Motor Corp. has the potential for a strong business model, but its current industry is highly competitive and expensive, making survival difficult. The automotive sector is saturated, and it's challenging to implement new innovations without other companies quickly copying and improving upon them. As a relatively new company, Liz likely has fewer resources to invest in risky projects compared to larger competitors, so it must be very strategic and calculated with its investments in new technology. At the same time, environmental and political concerns heavily influence a company's image, both with investors and the public, leaving little room for error in certain areas. These challenges make it difficult for Liz to position itself for success, and the company faces tough odds to overcome.

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### **2. Why was Anthony considering this ESG project? What criteria should she use for evaluation?**

Anthony is considering this project to try and raise Liz Motor Corp.'s ESG rankings after a disappointing 2022. After stock price dropped 6.2 percent, the shareholders of Liz Motor Corp. asked its CEO and CFO (Anthony) to invest more into ensuring 2023 has better results. Criteria that must be used in evaluation include: Industry and Market Trends; Money Lending Rates; Investment Total; Investment Return Amount and Time; Technological Innovation Possibilities and Timeline; Probable Outcome Ceilings and Floors.

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### **3. What hurdle rate would you use for this project?**

We will be using the given rate of 8% for this project.

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#### 4. Base model: project the cashflows for 2023 – 2035 and evaluate the investment decision by calculating the NPV, payback period, IRR, and PI.

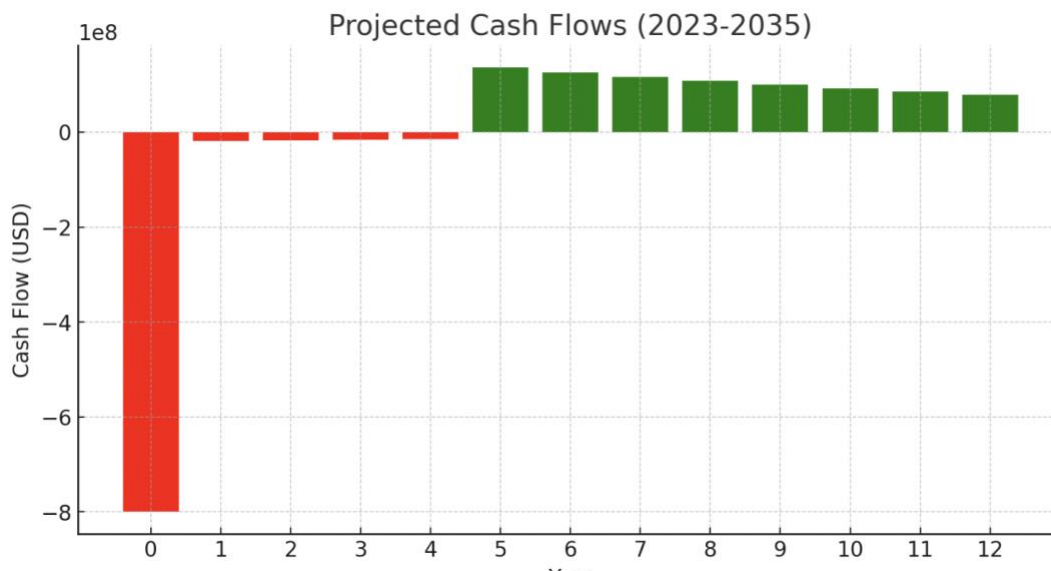
Cash Flows:

Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12
\$(800,000,000.00)	\$(18,518,518.52)	\$(17,146,776.41)	\$(15,876,644.82)	\$(14,700,597.06)	\$136,116,639.41	\$126,033,925.38	\$116,698,079.05	\$108,053,776.90	\$100,049,793.43	\$92,638,697.62	\$85,776,571.87	\$79,422,751.73

NPV: \$(21,452,301.42)

IRR: 0.076586755

PI: 0.97



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#### 5. Sensitivity analysis: complete the sensitivity analysis based on the list of uncertainties given in the case.

Using a monte carlo simulation, we have gathered that from the different uncertainties mentioned in the many scenarios, the average NPV of our project is around -\$50,000,000 with a standard deviation of 90,000,000. We calculated this based on the parameters shown below. Another aspect we included was the 30% chance of the project's lifespan being cut two years short and left

with zero salvage value. Given these constraints, we iterated the project 1000 times to ensure accuracy and came up with the already stated statistics.

	Expected	Min	Max
Discount Rate	8.0%	7.5%	8.5%
Cash Flow Return	\$200,000,000.00	\$152,000,000.00	\$260,501,288.85
Initial Investment	\$800,000,000.00	\$800,000,000.00	\$810,000,000.00
Salvage Value	\$0.00	\$0.00	\$100,000,000.00

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## **6. Consider all of the qualitative factors for an ESG project. Which ones are most relevant and important for this particular project?**

Some qualitative factors to be considered for this ESG project are social trust and capital, which would reduce the company's overall risk as well as reduce their cost of capital. Second, the project could improve corporate image and brand value. It was estimated that strong ESG projects would produce greater shareholder value, and 60% of companies across the U.K, U.S. and Canada reported that the greatest benefit of ESG was an improved image. The project could also mitigate regulatory risk, enhance employee productivity and help with the hiring and retention of employees.

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## **7. What recommendation should Anthony bring to the chief executive officer and the board at their upcoming meeting? Summarize your analysis and make a decision.**

Our team has decided that it would be wise to accept this project to bolster ESG standing and stay competitive within the industry. Although this is a risky investment, it is one that should be made to increase revenues after a drop in growth from 26%-17% in 2021-2022. This move would also position Liv Group as a leader in their industry with the new solid-state batteries being rolled out, reducing carbon footprints from EV's by 39%. Additionally, we've already received \$3.5 Billion in financing for our 20 new EV models, we're heavily investing in our EV production platform in three different countries, and we've already announced that we're going to be manufacturing these batteries ourselves. Out of the 11 scenarios (including base case), 5 of them have the project yielding a positive NPV, while the other 6 yield a negative NPV. Additionally, one of the negative scenarios has a 30% probability, which makes it even more likely that this project will end up in the negative. After conducting a Monte Carlo Simulation, we found that our best probability of reaching a positive NPV was 38%. However, in terms of ESG standing, and pleasing the shareholders, this project makes sense and still offers a chance of

a positive NPV. To conclude, while this project is not one that has strong financials, the improvement to ESG standings, shareholder relations, and sustainability within the industry makes it a worthwhile investment.

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### **Conclusion**

In conclusion, based on the analysis of both qualitative and quantitative factors, we will provide a comprehensive recommendation that will assist in making a well-informed decision for the ESG project. Our findings will be summarized in the upcoming presentation and accompanying spreadsheet.