

Introduction Paragraph: Exploring our Engineering Challenge

Problem Statement: What is the problem that you are trying to solve?

We as (role) seek to (problem) that must address (major constraints/goal) for (stakeholders).

Constraints for your Energy Plan:

Constraint 1

- *One of the major constraints that we have to meet is _____. This means _____.*

Constraint 2

- *Another constraint is _____.*
- *Additionally, _____.*
- *Moreover, _____.*

Constraint 3

- *Lastly, our third constraint is _____.*
- *Finally, _____.*

Criteria for Each of the Energy Sources

- *The constraints above must be addressed and their success is measured by three criteria. These criteria are _____.*

Criterion 1

- *(Criterion 1) is _____. This means _____.*

Criterion 2

- *Another one of our criteria is (Criterion 2). An example of this is _____.*

Criterion 3

- *Lastly, the third criterion is (Criterion 3), which means _____.*

Make a claim: What is your highest priority of the criterion above and why? (This will help develop your strategy.)

- *I believe (one of the criteria) is most important because _____.*
- *If we do not make _____ a priority, then _____.*

What possibly might happen if you do not solve the problem?

If we do not solve this problem _____ might happen because _____.

Evaluating Competing 50 Year Energy Plans

Plan A: What are the strengths and weaknesses of your plan in terms of the criterion?

Describe the overall strategy of your plan.

In my 50 Year Energy Plan my main strategy was to ___.

The energy source in which I most heavily invested was ___. I did this because ___.

Additionally, I also invested in ___. The advantage of this was ___.

When making my plan I avoided ___ as an energy source because ___.

Plan B: What are the strengths and weaknesses of the competing plan in terms of the criterion? **(Note: You must paraphrase your competitor's information--no copying!)**

Describe the overall strategy of the competing plan.

The strategy of the competing 50 Year Energy Plan was ___.

They invested most heavily in ___ and also invested in ___.

The competitors plan avoided ___.

<p>Strengths (Smiley Faces) <i>One of the strengths of my plan was __ (most smiley face). This was reached by __.</i></p>	<p>Weaknesses (Frowny Faces) <i>When making my plan, I sacrificed __ (most frowny face). I did this because __.</i></p>	<p>Strengths (Smiley Faces) <i>One of the strengths in my competitors plan was __ (most smiley face). This can be explained by their investment in __.</i></p>	<p>Weaknesses (Frowny Faces) <i>A weakness in my competitors plan was __ (most frowny face). This happened because __.</i></p>
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Reasoning about the Best Design

Claim: Restate your claim about which criterion is most important (see introduction paragraph) and state which plan best fulfills that priority.
As I stated before, I made (one of the criterion) my number one priority because __. When comparing the designs, I believe that (my plan or competitor's plan) most successfully accomplished the goal.

<p>Most Important Criterion</p>	<p>Important Difference Between Plan A and Plan B <i>When looking at each of the plans, <u>(my plan or competitor's plan)</u> did a better job of addressing <u>(most important criterion)</u> by __.</i></p>	<p>What energy resource / strategy did the plan use to achieve that difference? <i>This difference between the two plans is highlighted when looking at the investment in __.</i></p>
<p>Very Important Criterion</p>	<p>Important Difference Between Plan A and Plan B <i>Another important difference between the two plans is __.</i></p>	<p>What energy resource / strategy did the plan use to achieve that difference? <i>By investing in __, __ plan was able to perform better because __.</i></p>

Really Important Criterion	Important Difference Between Plan A and Plan B <i>Lastly, the plans had a different rating for ___.</i>	What energy resource / strategy did the plan use to achieve that difference? <i>By comparing the two plans, this difference was created by ___.</i>
<p>Concluding statement: Summarize in terms of the priority of the criterion why your chosen solution (plan A or B) is better. <i>After reviewing all the evidence in both plans, I conclude that (my plan or competitor's plan) most successfully fulfills our goal of ___. (Restate briefly why you think this)</i></p>		

Limitations of Your Plan

What challenges do you envision in implementing your solution? Have you made any assumptions?

By analyzing the strengths and weaknesses of (the chosen 50 year energy plan), I predict it will be difficult to meet (one of the criteria) because ____

Another challenge I predict in implementing my solution is ____

In addition, I assumed that ____ . This assumption means that ____

What problems may still remain if your proposed plan is implemented?

If the challenges mentioned above are faced, a problem that may remain after the plan is implemented is ____ . This is an issue because it may lead to ____ .

What technological breakthroughs might change your plan design? How might it change?

Implementation of the proposed plan would be made easier if (new technology) existed. This would help because ____ . However, if (current technology) were to be eliminated, my plan would face further challenges because ____ . This would change the fulfillment of the criteria because ____ .

What do you wish you could still include and write about?

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