# Assignment Summary

For this assignment, you will research two land resources that are used to meet the energy needs of the nation. You will compare these two sources using cost-benefit analysis. Based on your analysis, you will determine which energy source is better. You will then write a paper to share the information you researched, your analysis, and your conclusion.

Background Information

In 2015, the United States produced 89 quadrillion British thermal units (Btu) of energy from different sources. Coal accounted for 21% of this production, and 32% is from natural gas. The production and development of these resources involve costs. Coal and natural gas extraction and production also have environmental and human health implications.

Materials

* Internet access
* Word-processing software

# Assignment Instructions

For this project, you are expected to submit

1. a paper that contains the information you gathered from your research, your cost-benefit analysis, and the conclusion you made based on your analysis.

**Step 1: Prepare for the project.**

1. Read through the guide before you begin so you know the expectations for this project.
2. If there is anything that is not clear to you, be sure to ask your teacher.
3. Make sure to use reliable resources for your research.
	1. You will list the resources you used at the end of your paper.

**Step 2: Research coal as a source of energy.**

1. Research and note the following information about coal.
	1. Benefits
	2. Limitations
	3. Cost of generating electricity using coal
	4. Impact on the environment
	5. Impact on human health

**Step 3: Research natural gas as a source of energy.**

1. Research and note the following information about natural gas.
2. Benefits
3. Limitations
4. Cost of generating electricity using natural gas
5. Impact on the environment
6. Impact on human health

**Step 4: Write your paper.**

1. Write an introductory paragraph.
	1. Include a brief description of coal and natural gas.
	2. Include the purpose of your paper.
2. Compare coal and natural gas.
	1. Benefits
	2. Limitations
	3. Cost of generating electricity
	4. Impact on the environment
	5. Impact on human health
3. Use the information you gathered to do a cost-benefit analysis.
4. Write a concluding paragraph.
5. Include in your paragraph a conclusion as to which energy source is better to use.
6. Support your conclusion with information from your analysis.

**Step 5: List your resources.**

1. Provide a list of the resources you used to complete your research at the end of your paper.

**Step 6: Evaluate your project using this checklist.**

If you can check each box below, you are ready to submit your project.

* Did you do research on coal and natural gas as sources of energy?
* Did you note each source’s benefits and limitations?
* Did you note how much it would cost to generate electricity using each source?
* Did you note each source’s environmental and human health impacts?
* Did you do a cost-benefit analysis to compare the two sources?
* Did you make a conclusion based on your cost-benefit analysis?
* Did you support your conclusion with information from your analysis?
* Did you list information resources that you used for your research at the end of your paper?

**Step 7: Revise and submit your project.**

1. If you were unable to check off all of the requirements on the checklist, go back and make sure that your project is complete. Save your project before submitting it.
2. Submit your paper through the virtual classroom.
3. Congratulations! You have completed your project.