

## **Guidelines for Feasibility Assessments**

The feasibility assessments have three purposes: (1) to help you focus on concrete projects that would be implemented by specific decision makers or organizations; (2) to help you think through early on how you'll tackle your project, and (3) to check whether the project is likely to be technically and economically viable. Each assessment will be submitted in two parts: a written document submitted as a PDF that addresses all three points, and a spreadsheet file that addresses the third. All documents will be submitted on Blackboard. The written document should have the structure outlined below:

### **Part 1: Summary**

One page with the following information:

- The name of the class
- The project title
- A line saying: Proposal to [target organization or specific decision maker]
- The names of team members, with email addresses
- The date
- A one-paragraph abstract describing the project

The abstract should specify the problem being addressed, how it will be tackled, and the expected outcome. It should be understandable by professionals familiar with energy problems in general but not your particular project. It will usually summarize the information in the next section so you should probably plan to write it last.

The page should be laid out neatly and professionally. It should be suitable for use as a standalone document that you could send to the target organization to begin a discussion about your proposal. Note: since it will be circulated as a standalone document, it should not be labeled "Part 1".

### **Part 2: Proposed Approach and Data Requirements**

The next part of the document should start on a new page and include sections with the information listed below. This part will be used internally by you and the instructors to plan out the project and will not be sent to outsiders.

#### *1. Project Title*

This and the next three sections repeat information from the summary page.

## 2. Implementing Organization

The organization you hope to convince to implement the proposal. If possible, identify the specific person or group of people with authority to make the decision.

## 3. Names of Team Members

[...]

## 4. Date

[...]

## 5. Problem Statement

A brief explanation of the problem the project will address, why it is important, and how the project would help. This section should be 1-2 single spaced pages and go into more detail than the abstract. It can usually be a revised and updated version of the text in your original proposal. The more concrete and specific you can make the problem statement, the easier it will be to design and carry out the project.

## 6. Outline of Analysis

A sketch of the calculations needed to show how your project will perform. This section can consist of subheadings followed by bullet points or other terse descriptions of what you expect to do. For example, if you wanted to calculate the payoff from switching from a conventional to a hybrid car, you might want to have a subsections on “capital costs”, “fuel costs”, “operation and maintenance”, and so on. Then in the “fuel costs” section you would outline how you would calculate the life-cycle fuel costs of each vehicle.

## 7. Data Requirements

This section should consist of a brief summary followed by one or more tables with one row for each variable or item of data you’ll need and the following columns: (1) a short name for the variable; (2) a description of it; (3) its units; (4) where you think you will eventually be able to get it; and (5) a rough placeholder value for the feasibility analysis. The table should look something like this:

**Table 1: Fuel Consumption Data Required**

| Name    | Description                   | Units  | Likely Source      | Placeholder |
|---------|-------------------------------|--------|--------------------|-------------|
| miles   | Average miles driven per year | mi     | Edmunds            | 12,000      |
| mpg_con | MPG for a conventional car    | mi/gal | EPA or DOT website | 20          |
| mpg_hyb | MPG for a hybrid car          | mi/gal | EPA or DOT website | 40          |

Be sure that the list of data matches your outline in part 5 as closely as possible.

## *8. Other Considerations*

This section is optional but could include, for example, any interviews or qualitative analysis you think you might need to do to find out if your project is really viable.

### **Part 3: Quantitative Results**

This section should begin on a separate page and consist of a professionally-formatted printout of the spreadsheet you use for your feasibility analysis. The spreadsheet should be clearly organized and internally documented so that other people could understand and use it with only the spreadsheet itself and your overall feasibility analysis as documentation. The actual spreadsheet you used should be submitted as well.