Fahrenheit
Consulting Group

Case Study – Capital Investment

A client needed to quickly make a major capital investment decision based on a major customer's long-term product demand forecast

KEY ISSUES

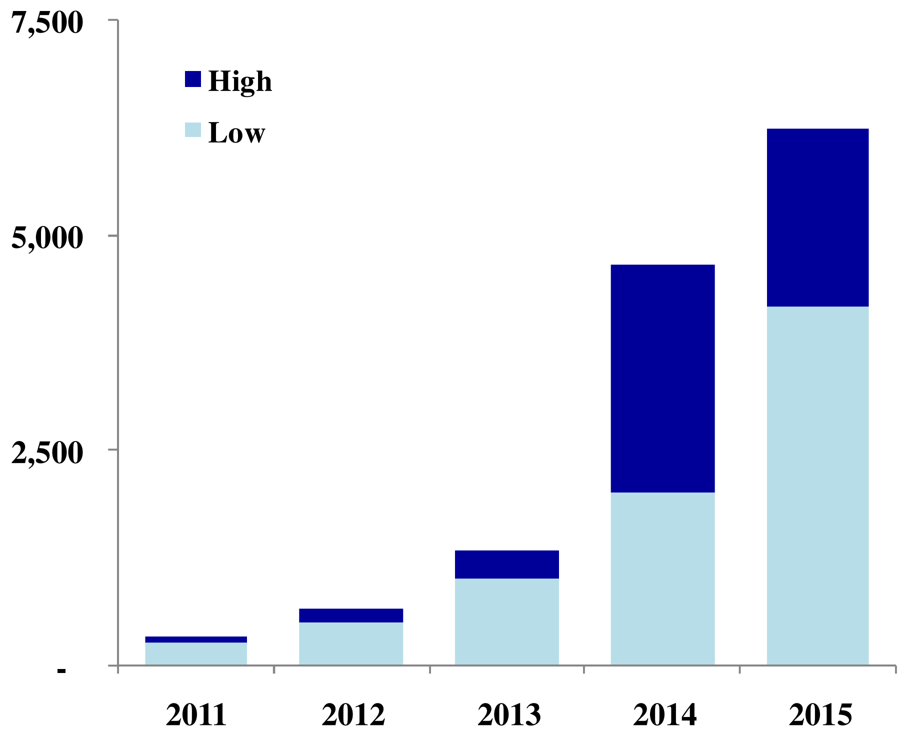
- What is the market opportunity for the client with it's alternative energy customer?
- How much business does the customer's projected demand represent for the client?
- How do government subsidies affect customer economics and market potential?
- How reasonable are customer's demand assumptions?
- Does customer have a track record of meeting announced goals? Why or why not?
- What are the perspectives of unbiased industry experts about customer's demand assumptions?
- How is the client's customer positioned in the market relative to competition?

APPROACH

- Completed secondary research on the market and the client's customer using over 35 different sources
- Conducted 12 external interviews with industry experts
- Completed weekly meetings with client management to allow for fine-tuning project direction given the short decision time frame
- Conducted market demand analysis
- Evaluated opportunity and made recommendation on the capital investment decision

Our client's major customer's demand estimate was unattainable

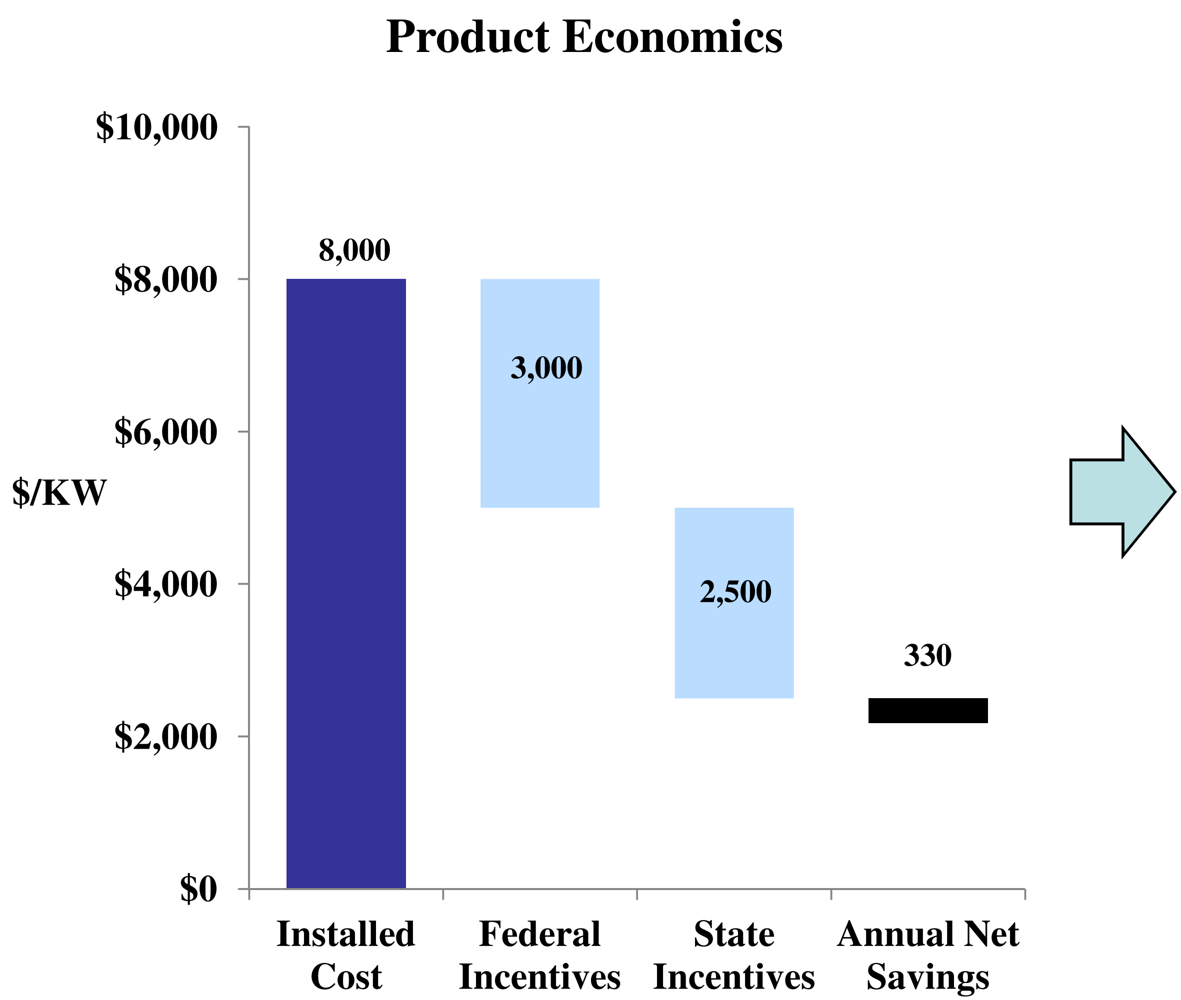
PROJECTED PRODUCT DEMAND



REASONS WHY DEMAND ESTIMATE SEEM UNATTAINABLE

- Technological limitations reduce the areas of the country where product can function
- Implied share of the addressable electricity market is 12% to 17% in 2015
- Actual past performance vs. targets
  - In 2006, customer projected over 1,000 systems in place by 2009
  - Actually installed 19 by 2009
  - In 2010 had 150 under contract for future installations
- Competitive position – two other competitors with a larger installed base
- Ability to meet demand from a infrastructure perspective – small sales force unlikely to achieve demand estimates

Economically, the customer's product require subsidies to compete representing another significant risk



Simple Payback = 7.6 years

We recommended a measured approach to increasing capacity

- A major investment to increase capacity to fully meet customer's demand expectations is not warranted
  - Customer's projected demand is unattainable
  - Project economics currently depend on subsidies
  - Customer does not have a significant technical advantage that would alter the economics
  - Customer does not have a compelling competitive advantage at the present time
  - Customer does not have the manufacturing capacity to support projections
- However, the customer could still have a bright future, albeit at a lower growth rate
  - Economics slightly better than alternatives
  - Chemicals involved in the process are less dangerous
  - Process more efficient from a Carbon perspective
  - Customer's technology works and customers are pleased with performance to date
- Fahrenheit recommended the following:
  - Consider slowly increasing capacity with small investments
    - Customer has potential several years in the future, growth in the next 5-10 years will likely be slow but steady
  - Ask Customer to fund Client's capacity increases in exchange for lower pricing on components
    - Reduces Client's risk
    - Allows Customer to recapture capital expenditures and cost of capital
  - Client needs to avoid 'bailing out' customer's private equity investors
    - Customer appears to be using hype to improve their IPO potential while limiting users ability to discuss their experience