



# ESPA: Energy Supply Project Analysis

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# Stakeholder's Need and Our Approach

- Need : Efficient and easy to use database that allows the user (Paul Romano) to see information regarding energy supply usage at TCNJ
- Two main questions:
  - When is it economical for the campus to produce its own power as opposed to using that of the electric grid?
  - When is it least polluting for the campus to produce its own power as opposed to using that of the electric grid, on both a site and source basis?
- Our Approach: Database with two dedicated sets of queries
  - Energy Efficiency
    - Broken down into yearly, monthly, 15 minute intervals
  - Energy Reliability
    - Broken down by heating/cooling season in yearly/monthly intervals



# ESPA's Impact

- Benefits
  - Specialized
  - Detailed 15 minute breakdowns
  - Robust room for expansion
  - Front end error checking
  - Straightforward and practical design
- Costs:
  - Data predefined in 15 minute intervals
  - Sizable memory space
  - Brand new website