PENN STATE AE SENIOR THESIS 2011 - 2012

THESIS PRESENTATION OUTLINE

Presentation Outline and Sample Slides

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March 26, 2012

RIVER VUE APARTMENTS | NEW LUXURY APARTMENTS RENOVATION| PITTSBURGH, PA

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Thesis Presentation Outline

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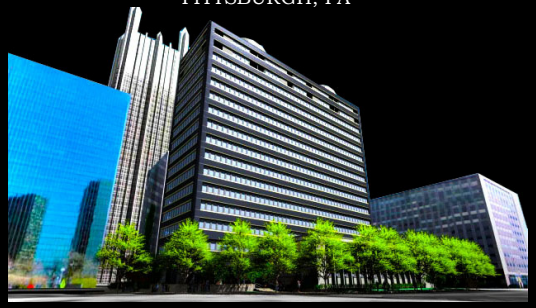
VII. **Summary of All Recommendations and Conclusions (1 screen)**

VIII. **Acknowledgements (1 screen)**

RIVER VUE APARTMENTS

PITTSBURGH, PA



PENN STATE AE SENIOR CAPSTONE PROJECT

BRIANNE KYLE | CONSTRUCTION MANAGEMENT

DR. CHIMAY J. ANUMBA

RIVER VUE APARTMENTS
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PHOTOVOLTAIC GLASS WINDOW SYSTEM

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PITTSBURGH, PA

BRIANNE KYLE | CONSTRUCTION MANAGEMENT

PRESENTATION OUTLINE:

Image Courtesy of www.smartplanet.com

PROBLEM IDENTIFICATION:

- Project achieving LEED certification through sustainable construction methods
- Few sustainable design techniques pursued in project
- High building electrical energy consumption

RESEARCH GOAL:

- Perform preliminary design of photovoltaic glass window system
- Determine financial feasibility of system
- Reduce electrical energy consumption

Image Courtesy of www.getsolar.com

RENEWABLE ENERGY/ELECTRICAL BREADTH

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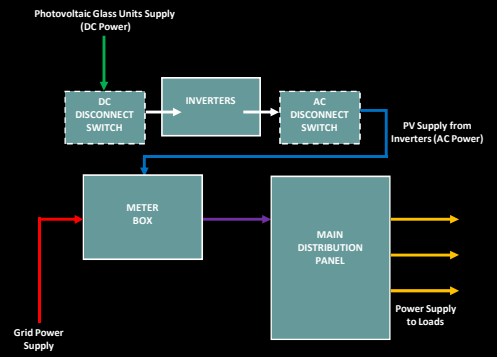
PRESENTATION OUTLINE:

EXISTING GRID CONNECTION:

- PV glass window system too large for load-side interconnection
- Use supply-side interconnection

ELECTRICAL COMPONENTS REQUIRED:

- DC wire-run
- DC disconnect switch
- Inverter
- AC disconnect switch
- AC wire-run
- Service-tap meter box



GREEN ROOF SYSTEM

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PRESENTATION OUTLINE:

PROBLEM IDENTIFICATION:

- Project is achieving LEED certification through sustainable construction methods
- Few sustainable design techniques pursued in project

RESEARCH GOAL:

- Perform preliminary resident-accessible design of green roof system
- Determine structural impact on existing roof system
- Determine financial feasibility of system