

The ENPRO Mid-Term Progress Report  
Fall 2004

**ENPRO 355: Advanced Technology for Photovoltaic  
Solar Windows**

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## **1) Objectives**

- a) develop a business plan around the IP / Patents related to the HPC (holographic planar collector)
  - i) create a cash flow analysis, with an exit strategy
  - ii) create a break even chart
  - iii) Provide a description of the technology
- b) Meet IPRO objectives
  - i) Submit a midterm report outlining details and responsibilities for the rest of the semester
  - ii) Give presentation on IPRO day that includes a power point lecture, a poster that explains the technology and outlines the business plan, a website including necessary information for potential partners / investors, also include a physical model of the technology
  - iii) Use the IPRO PRS to update and track progress of project
- c) Use interdisciplinary teams to accomplish Technical projects associated with business and technical development

## **2) Project Summary**

- a) The rising costs of energy and the growing awareness to the free and unlimited power provided by the sun have spurred the solar market over the last decade. Over the course of the industry's growth two very different markets have emerged; one aimed for power and the other as a building integrated system to supplement existing grid power. The problem thus becoming creating a cost effective solar technology that will work within existing infrastructures to provide solar power. To this end Phocus Co. has acquired patents of and relating to the Holosun Technologies. The primary market for the product is currently mid to high rise new construction projects. Initial market research points to a growing need for a building integrated product that can provide significant power for less cost than traditional photovoltaics.

### 3) Schedule

Week 1	
8.31.2004	No meeting
9. 2. 2004	First meeting–introduction and reception at HUB
Week 2	
9.7.2004	Discussion of goals and direction, assigned tasks
9.9.2004	Group meeting
9.10.2004	Project Plan due
Week 3	
9.14.2004	Group meeting
9.16.2004	Group meeting
Week 4	
9.21.2004	Group meeting
9.23.2004	Group meeting
Week 5	
9.28.2004	Group meeting
9.30.2004	Group meeting
Week 6	
10.5.2004	Group meeting
10.7.2004	Group meeting
Week 7	Project Plan
10.12.2004	Group meeting
10.14.2004	Group meeting
Week 8	Mid Term Report
10.19.2004	Group meeting, Submit final on Project Plan (PRS)
10.21.2004	Fall break–No class
10.22.2004	Midterm progress report due
Week 9	
10.26.2004	Group meeting
10.28.2004	Group meeting
Week 10	
11.2.2004	Group meeting, Submit rough draft of slides
11.4.2004	Group meeting

Week 11	
11.9.2004	Group meeting, Guest lecture on renewable energy
11.11.2004	Group meeting
Week 12	
11.16.2004	Group meeting, Prelim outline of Poster (layout)
11.18.2004	Group meeting
Week 13	
11.23.2004	Group meeting, Complete Abstract in class
11.25.2004	Group meeting, Plot Poster
11.29.2004	Professional style exhibit and Project abstract due
Week 14	
11.30.2004	Group meeting, Final dry run on slides
12.2.2004	Group meeting
Week 15	
12.1.2004	Web site and final oral presentation
12.3.2004	I PRO day; final report and team information

#### **4) Team Organization:**

a) The team originally had difficulty realizing their role in the enpro. Part of this was because the team didn't agree on exactly what the product was (there were several options as to what degree the product would be manufactured by the enpro). Also developing a business plan is new territory for all the students. The team has since then specifically defined the product, so the team knows where the enpro falls into the supply chain. The students also now have a grasp on their assigned duties and a form of communication has been established through yahoo groups.

#### **5) Challenges and Resolutions:**

a) The enpro team has common goals for every member, but it also has been divided up into two groups, one group working on design of the manufacturing process and another group working on the cost analysis of the business. This requires much communication because the group designing the manufacturing process has to give information to the cost analysis group so that proper estimates can be made. As of today the team has made a proposal on the design and costs of the manufacturing process. The team is well on their way to make a complete business plan.