



Pilikan Project

Annapolis Valley Campus

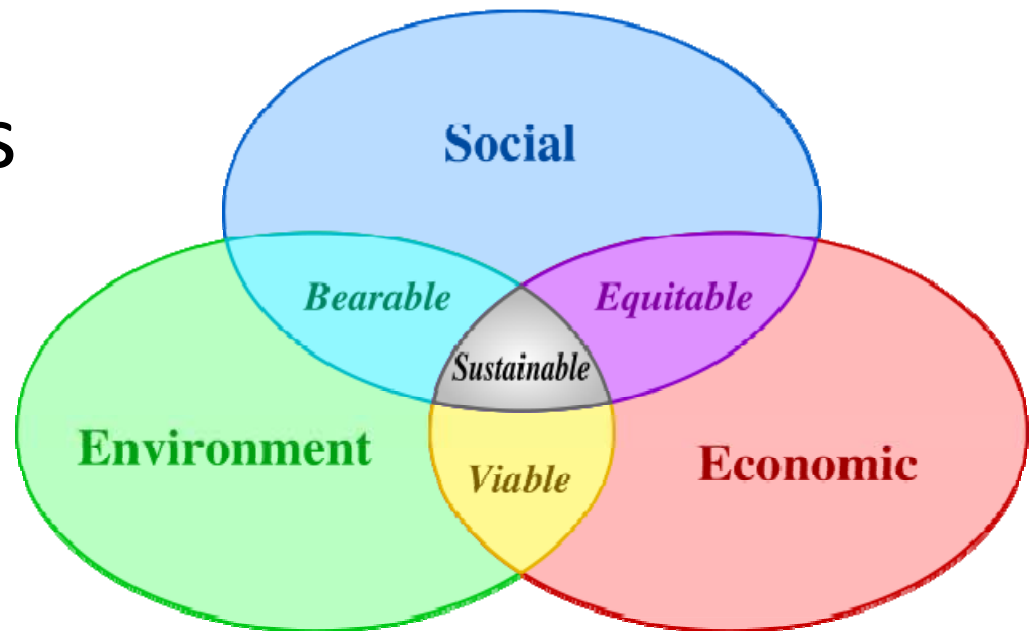
Introduction

- Sustainability
- Energy Sustainability Engineering Technology
- Project Scope & Expected Outcomes
- Cross Over Training Opportunities
- Partnerships

Defining Sustainability

“development that meets present needs without compromising the ability of future generation to meet their own needs.”

(Our Common Future, World Commission on Environment and Development Report, 1987)



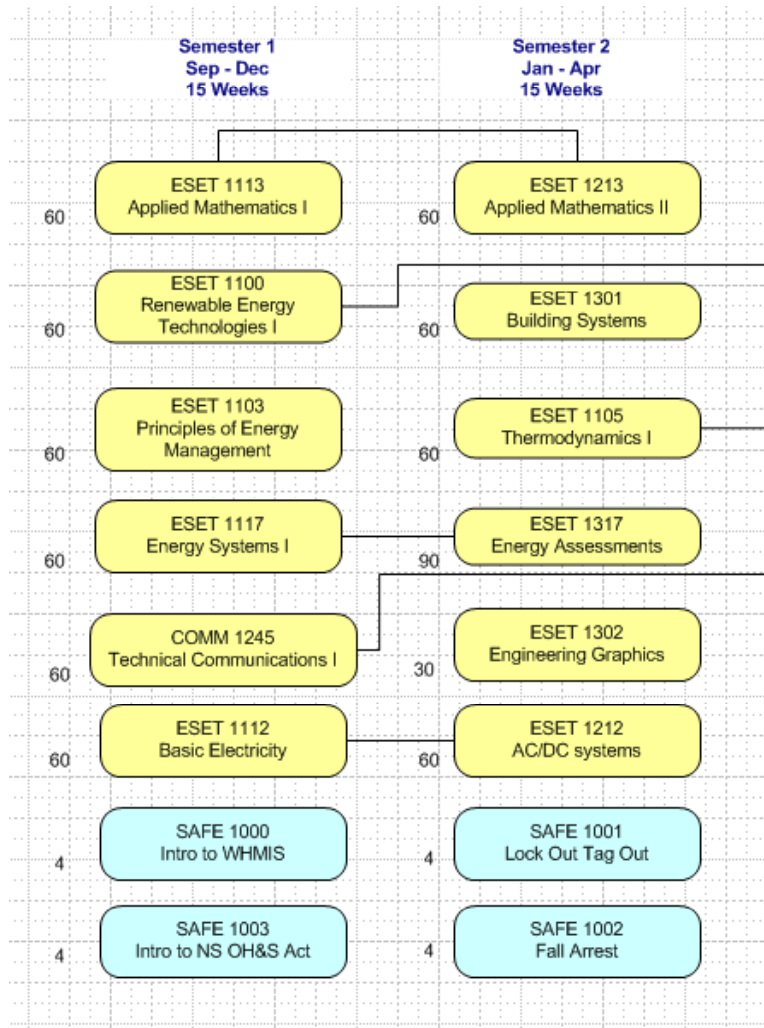
E.S.E.T. Program

Energy Sustainability Engineering Technology Program

- Specialized Energy Management Training
- Hands on Auditing & Analysis of Energy Systems
- Sustainable Focus on Full Life Cycle Costing Model
- Leveraging Energy Conservation Opportunities
- Application of Renewables
- Strong Community Involvement



E.S.E.T. Training Opportunities

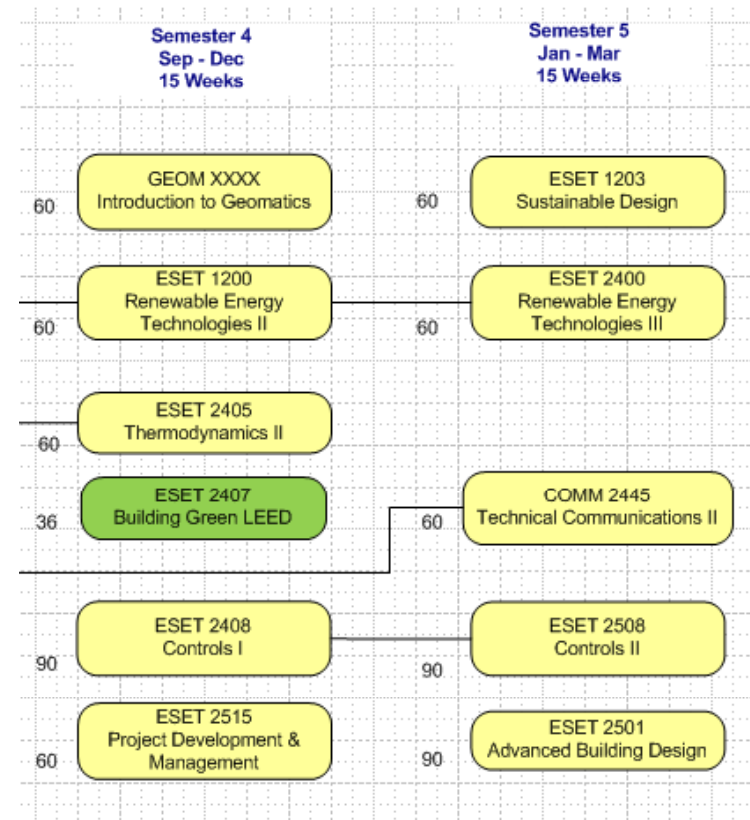


E.S.E.T Program Map (Year 1)

- Real time renewable energy system performance.
- Hands on residential building systems training.
- Opportunity for energy management training.
- Ability to track, assess and distribute information.

E.S.E.T. Training Opportunities

- Hybrid renewable energy system research.
- Assessing performance of green building systems.
- Automation and control
- Integrated design process case study.
- Life cycle analysis of building materials.



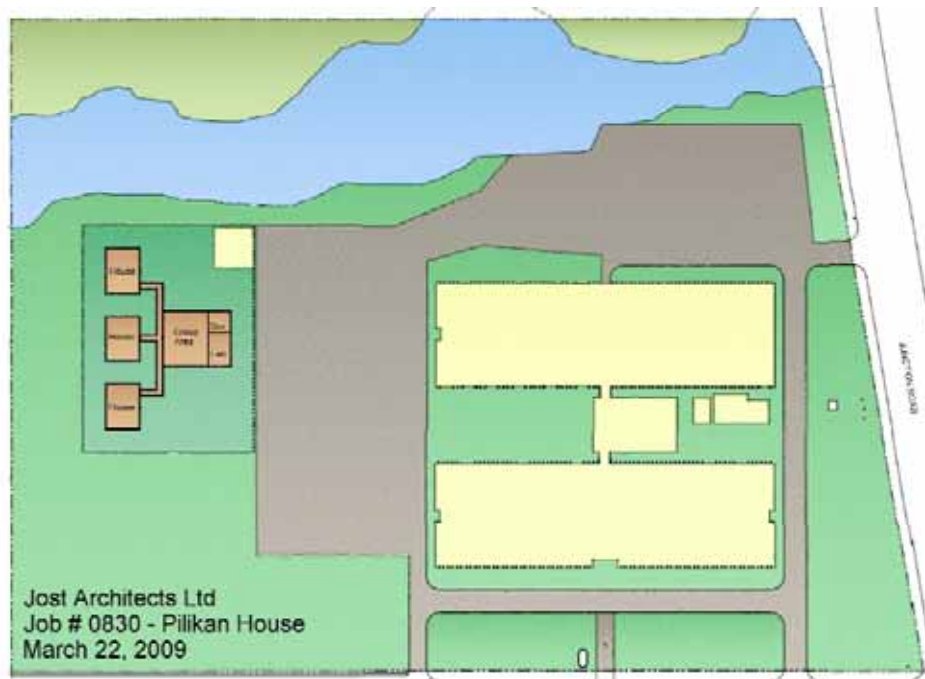
E.S.E.T Program Map (Year 2)

Learning Model & Outcomes

- Inductive Teaching Methodology
 - Inquiry based; project based; problem-based
- Collaborative & Cooperative Learning Models
 - Service Learning Model
 - Inter-disciplinary Learning Model
- Overarching Qualifications Framework (Graduate Profile)
 - Focused on “broadening and deepening technical education and training”,
 - Include more inter-disciplinary skills and knowledge to broaden the training program.
 - Essential & Employability Skills
 - Professional & Sustainable Practices
- Accreditation & Certification
- Applied Research
 - Faculty & Student Projects
 - Industry Collaboration

The Built Environment

Built environment
“encompasses all buildings, spaces and products that are created, or modified, by people.”



Pilikan Project



- Root: Mi'kmaq for “new house”
- Pronounced: billy gun

Pilikan Project

- Supports the College's focus on the "built environment"; specific focus on the "residential model".
- Provides a living laboratory to support the E.S.E.T. Program along with Trades Programs.
- Model will consist of three similar purposed buildings constructed with alternate methods.
- Centralized control building.

Pilikan Project Goals

- Construct a building and systems that is a demonstration project for students, industry and the community.
- Flexible in it's potential end use.
- Use modern building technologies, design principles and construction techniques to create a sustainable building that minimizes its impact on the environment.
- Allow comparative analysis with existing housing stock in Nova Scotia.
- Utilize/analyze different renewable energy systems.
- Offer continuing education, part-time studies opportunities for industry professionals.
- Study the availability and use of local resources and materials (LCA).

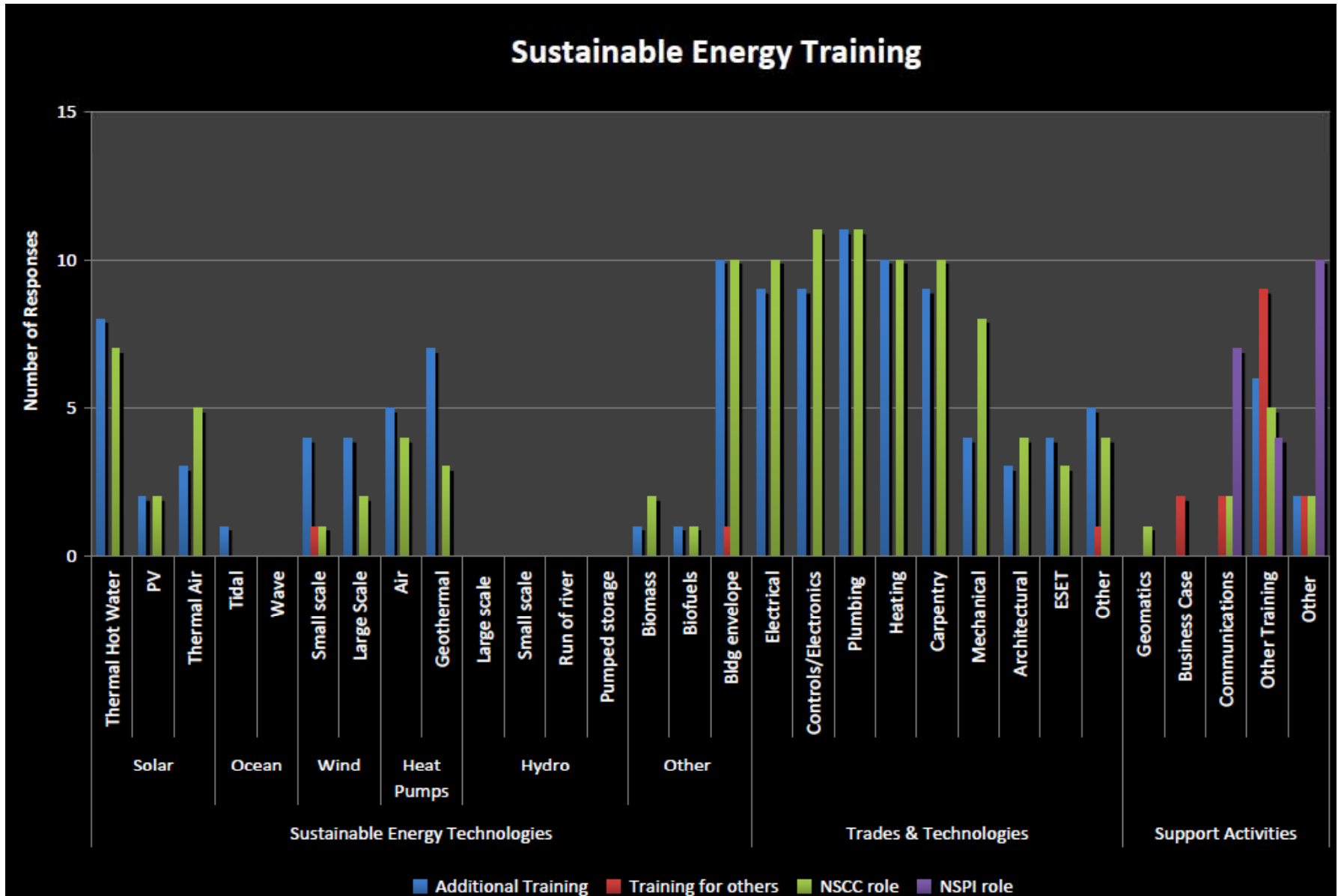
Cross Over Training Opportunities

- “Age in Place” – School of Health.
- Flexible Housing Research.
- Residential Information Management Systems (health, security, energy, occupancy etc).
- Accessible Design & Total Cost Studies.
- Real Time Data Communication – IT.
- Community Education.
- Provincial Test Facility.



Centre for the Built Environment & The Pilikan Project Results of Stakeholder Survey

Industry's Perspective



Feedback on CBE & Pilikan

- Role of the facilities
 - Training, research, public education, and Sustainable Energy demonstration all valuable.
 - Most see training as primary role.
 - Evenly split on other roles.

Feedback on CBE & Pilikan

- Partnership opportunities
 - Most respondents willing to consider involvement
 - Active participation commonly suggested
 - Funding
 - Design Review
 - Equipment Supply
 - Training/Curriculum Development
 - Material Research
 - Energy System Testing

Feedback on CBE & Pilikan

- Are we on the right path?
- What are we missing?
- How can we insure success for our students and our industry partners?
- How can we engage industry during the development, commissioning and ongoing utilization of these facilities?

The Greening of NSCC



“NSCC is committed to taking a leadership role as the College continues its journey toward environmental sustainability for the benefit of all Nova Scotians.”

Joan McArthur-Blair, President, NSCC