

IEEE Power and Energy Society New Initiatives and Outreach

Presented by

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PES V.P. New Initiatives and Outreach

To

Pacific Northwest Center of Excellence

Education Task Force Meeting

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IEEE

- Institute of Electrical and Electronic Engineers
- “Eye Triple E”
- Worlds Largest Professional Organization
- Advancing technological innovation and excellence for the benefit of humanity
- More than 400,000 members in more than 160 countries
- More than 107,000 student members
- 38 Societies
- Scholarship Plus Program

Power and Energy Society

- Worldwide, non-profit association of more than 29,000 individuals engaged in the electric power and energy.
- Professional Membership \$180 per year for IEEE plus \$35 per year for PES
- Student Membership \$32 per year for IEEE plus \$18 per year for PES
- Annual Meeting July.

PES Organization

- Conferences
- Technical Committees
- Membership
- Publications
- Chapters
- Education
- New Initiatives and Outreach
 - Community Solutions Initiative (Underway)
 - Community College Outreach (Proposed)

Community Solutions Initiative

- Co-Chairs: Ray Larsen and Robin Podmore
- Product:
 - Open source designs for affordable sustainable energy solutions
 - CSI Solar Trailer, Wind Turbine, Light Cycle, LightStick
 - Haiti – 15 solar trailers to light 1200 homes
 - USAID proposal to build 300 Solar Trailers in Haiti
 - Searching for partners in Africa and South Asia
 - Budget for 2012 - \$60,000

World Poverty Statistics

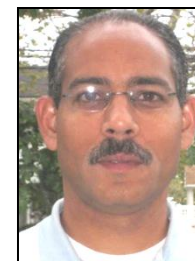
- Roughly 1.6 billion people, one out of every four people on the planet, do not have regular access to electricity.
- In sub-Saharan Africa, excluding South Africa, 75% of households or 550 million people have no access to network electricity.
- In South Asia places like India, Pakistan and Bangladesh, 700 million people or 50% of the overall population and 90% of the rural population are not on the grid.
- Based on the business as usual scenarios, the International Energy Agency predicts that 1.4 billion people will still lack access to electricity in 2030.



Community Charging Station

Summary of CSI Projects

- 1.5 KW Solar Trailer
- 10 ft. diameter wind turbine
- 6 ft. diameter wind turbine
- 50 watt LightCycle
- 1/5 watt LightStick
- Solar Storage Cooker



Community
Solutions
Initiative

1500 KW Solar Trailer



10' Diameter Wind Turbine

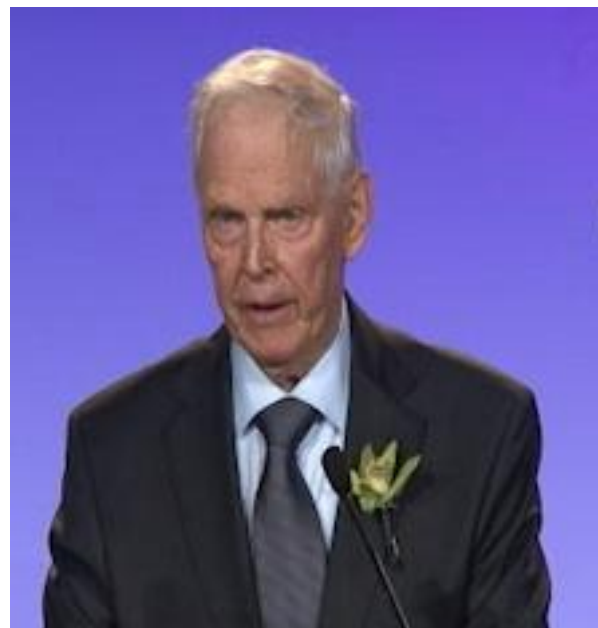


Proposed New Initiative

- Outreach to Community College Energy Programs
- Chair: Barbara Hins-Turner, Pacific Northwest Center of Excellence for Clean Energy
- Product:
 - Increased PES Student membership
 - Energy industry jobs for community college students
 - Increased career transitions from Associates to B. Eng. Degrees.

Reasons to Join PES

- Mentors
- Life Long Friendships
- Career Opportunities
- Travel Opportunities
- Life Long Learning



Mr. William Tinney
BPA Employee / Engineer
Inventor Sparse Matrix Solutions
2011 IEEE Medal in Power Engineering