Voluntary Carbon Market in Higher Education: Ball State University and Chevrolet Pilot Study

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Who:
- Chevrolet Motor Division of General Motors
- Bonneville Environmental Foundation (BEF)
- Climate Neutral Business Network (CNBN)
- Ball State University (BSU)

What:
- Chevrolet Motor Division of General Motors contracted with BEF and CNBN
  - Facilitated development of a “qualifying” performance methodology for colleges and universities to enter the carbon market
- 2013 Chevrolet Carbon Reduction Initiative funds a pilot-transaction carbon market study
  - Purchased of carbon reduction credits from BSU
  - Sale of Carbon Credits based on annual transfer for 3 years
  - Credits remand to BSU after contract expires
    - Available to meet American College & University Presidents’ Climate Commitment (ACUPCC) requirements
  - Voluntary-market transaction
  - No government agencies
  - Not subject to regulatory body approvals and fees

BSU’s Carbon Credits:
- New ground-source heat pump geothermal-energy system
  - Complete operational capacity - heat and cool 47 buildings
  - Replaced four aging coal-fired boilers using average 36,000 tons of coal annually
  - New system harvests and stores low-temperature geothermal energy in the Earth
- Water circulates in closed-loop underground pipes
- Draws heat from the Earth in the winter or sinks it in the summer
- Savings - $2 million net in annual operating costs
- Eliminate 85,000 metric tons of CO2e emissions

Measurement:
Clean-Air Cool-Planet Campus Carbon Calculator TM
“...originally developed with the University of New Hampshire in 2001 and released to the public in 2004. Due, almost entirely, to popular demand—its market share has grown steadily in the years since...as of today, thousands of institutions, in the US and abroad, use the Calculator. More than 90% of the US colleges and universities that publicly report their Greenhouse Gas Emissions use this calculator.”

Verification:
CNBN Methodology
- “Qualifies” greenhouse gas reductions for Carbon Credit Market
- Uses VCS-certified reporting protocols
- Provides six layers of documentation/reporting
- Establishes baseline scenario
- Clarifies the certifiable ‘additionality’ of a GHG reduction effort
- Annotates any methodological deviations
- Quantifies actual performance of greenhouse gas emissions reductions
- Describes potential vectors of leakage
- Makes data and parameters available to validate
- Reviews environmental impact

Conclusion:
- Leveraging Carbon Credit Transactions seeds transformation in higher education by providing funds
- Potential uses of funding
  - Establish Green Revolving Fund for new projects
  - Transition capital projects already underway to deeper levels of impact
  - Create sophisticated development/refinement of whole-system performance
- Ball State University
  - Underwriting Carbon Market Study
  - Underwriting campus research and education associated with geothermal installation so as to leverage additional longer-term carbon reductions
- Colleges and universities can use the transaction of carbon credits for:
  - Timely leveraging of additional longer-term carbon reduction
  - Enhancement of overall net reduction against ACUPCC requirements