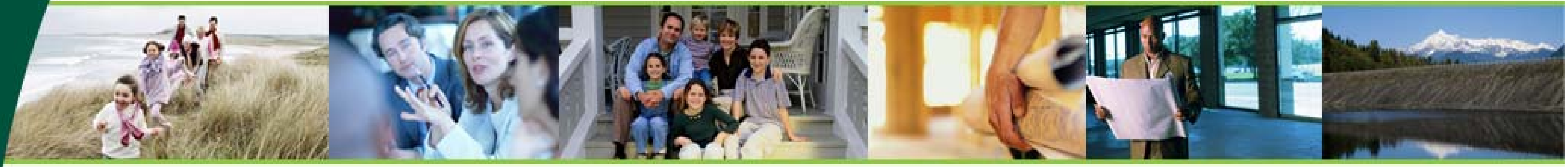

Emerging Energy Markets:

Making sure you don't leave money on the table

IDEA Campus Energy Conference

Presented by

Conservation Services Group

February 13, 2008

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Who is CSG?

- Founded in 1984; nonprofit corporation
- 300 staff, 12 offices nationwide
- US EPA Climate Leader - committed to Net Zero GHG emissions
- Design, develop, and deliver energy efficiency and clean energy programs and projects
- Clean Energy Markets group founded in 2002 to assist clean energy projects in accessing emerging markets
- Lead negotiator for Demand Resources in ISO-NE FCM
- Transact ~ $20 million in RECs per year

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Outline

- Overview of emerging energy markets
- Specific emerging energy markets opportunities
  - Renewable Energy Credits – RECs
  - Emission allowances – NO_x
  - Greenhouse gas offsets – GHG
  - Energy efficiency credits – “White Tags”
  - Demand response energy
  - Demand response capacity
- UNH case study

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Overview: Emerging energy markets

- A market CONSTRUCTED by a government or other “authority”
- Market purpose: to achieve a public benefit associated with the use of energy at the least cost to society
- Market transactions: Tradable Financial Instruments documenting specified contribution to achieving the public benefit

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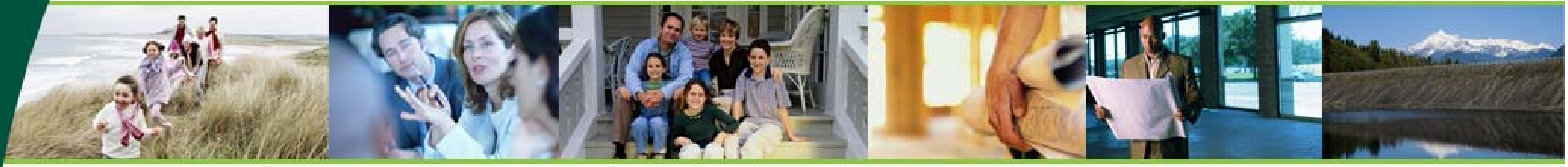

Criteria for emerging energy markets

- Public benefit will be achieved
- From the public's perspective: contribution to achieving public benefit is not related to who does the work
- The contributions to the public benefit can be accurately measured and verified

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How are markets similar?

- Financial instruments
- Credit market liquidity
- Project approval required
- Production/output documentation

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How are markets different?

- Certification authorities
- Eligibility requirements
- Denomination
- Geographic scope
- Voluntary *vs.* Compliance

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Project characteristics typically important to buyers

- Vintage
- Location
- Operation date
- Technology
- Fuel source
- Grid-tied
- Qualification
- Additionality

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Specific market opportunities

See handout

- Renewable Energy Credits – RECs
- Emission allowances – NO_x
- Greenhouse gas offsets – GHG
- Energy efficiency credits – “White Tags”
- Demand response energy
- Demand response capacity

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UNH case study

- CHP project commissioned 2006 using natural gas
- Currently being upgraded to operate on landfill gas brought to campus in a new private pipeline

UNH checklist of market opportunities

- ✓ Renewable Energy Credits – RECs
- X Emission allowances – NOx
- ? Greenhouse gas offsets – GHG
- X Energy efficiency credits – “White Tags”
- X Demand response energy
- ✓ Demand response capacity

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Renewable Energy Credits

- The devil is in the details
  - Falls in “no-man’s zone” for regional REC accounting system
  - Eligibility constraints
  - Build support for selling this asset to others
  - Build in-house capacity or outsource implementation
  - Potential revenue ~$2-3 million per year

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GHG offsets

Regional Greenhouse Gas Initiative (RGGI) rules will apply

- Ineligible for destruction of methane in the landfill gas because destruction is required by regulation
- Ineligible for generating electricity with a renewable resource, because not allowed under RGGI
- Questionable whether claim can be made for increasing efficiency because of CHP –
  no methodology approved

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Demand resources capacity

- 2006 FERC order
- New demand resources eligible to participate in ISO-NE new Forward Capacity Market
- UNH had to complete qualification process
- Metering and verification ISO-NE standards
- Build in-house capacity or outsource
- Potential revenue ~ $400-500K annually

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Questions/Recap

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