

Colorado Carbon Fund Advisory Committee 2nd Meeting

AGENDA



1:00-1:20pm
Brief Overview of Colorado Carbon Fund
Update on Outreach Partnerships and Participation

1:20-1:45pm
Project Pipeline

1:45-2:45pm
Options for new projects going forward – project size, type, certification and pricing issues
Advisory Committee Discussion

2:45-3:00pm
Public Q&A



3:00pm Meeting Adjourns

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Update on Colorado Carbon Fund
October 20, 2009

Presentation to the
Colorado Carbon Fund Advisory Committee

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PROJECT C
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Colorado Carbon Fund
Energy Efficiency
000 XXX

October 26, 2009
Colorado & New Energy
Efficiency Conference Denver

October 24, 2009
3rd Day - Local Solutions for
Climate Change Telecast

October 26, 2009
PRESS RELEASE: Office for
Residential Efficiency and
Project C to reduce
greenhouse gas emissions

October 26, 2009
PRESS RELEASE: Colorado
State Approves 2nd Colorado
Carbon Fund Project

Sign up for our
monthly e-newsletter
Enter your Email
Submit

think
Use our online
calculator to measure
the greenhouse gas
emissions from your
energy use, driving and
air travel

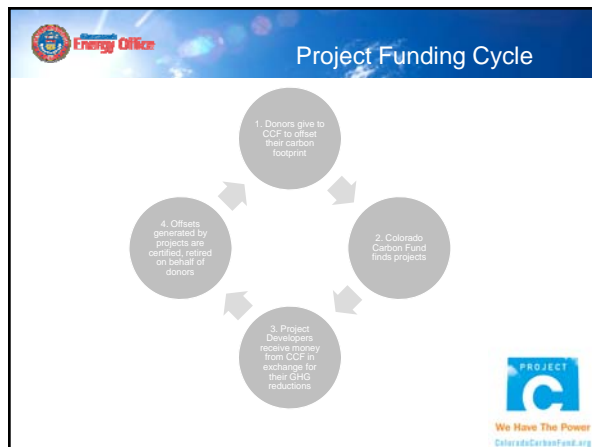
act
Take simple steps to
reduce your energy
consumption and
lower emissions and
save money on your
energy and fuel bills

fund
For the emissions you
can't reduce on your
own, donate to the
Colorado Carbon Fund
and we'll support
projects that reduce
emissions right here in
our state

www.ColoradoCarbonFund.org







Want to see your energy bill get smaller?

Climb a ladder.

Switching to an Energy Star light bulb can save you about \$40 over the life of just one bulb.

This is the simple idea behind Project C. By working together to save energy we can create a climate to think. Let us help you get more life about saving energy and reducing your carbon footprint.

THINK. ACT. FUND.

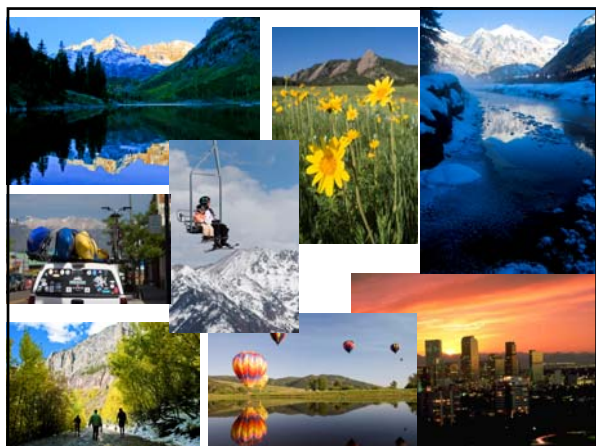
This season, offset your carbon footprint by supporting the Colorado Carbon Fund for only \$2. Your purchase finances local projects that cut greenhouse gases in the booming Front Valley—replacing 200 lbs of carbon dioxide from the atmosphere!






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Outreach Partnerships

- City of Aspen
- City of Boulder, **Boulder County**, **Longmont**
- Crested Butte/Gunnison** (Office for Resource Efficiency)
- Denver** (Greenprint, Greener Denver Business Program)
- Delta/Montrose** (Delta-Montrose Electric Assoc.)*
- Durango** (4CORE)*
- City of Fort Collins***
- Pueblo** (NGOs)
- Steamboat** (Yampa Valley Sustainability, Chamber)
- Summit County** (High Country Conservation)
- Telluride** (The New Community Coalition, San Miguel Power Assoc.)*
- Vail/Eagle Valley** (Eagle Valley Alliance for Sustainability, Vail Valley Partnership)

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Benefits for Contributors

- Donations to CO Carbon Fund are tax-deductible
- Carbon offsets support only local, Colorado projects
- The Climate Trust (national nonprofit) helps ensure credibility of offsets
- Supports local clean energy and climate goals through re-investment programs for outreach, education and clean energy projects in the local community
- Opportunity to work with the Governor's Energy Office and support our state's New Energy Economy
- Marketing and communications support to promote your involvement

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Our Contributors to Date

More than 500 individual donors spread across 80 communities:

1. Denver (200)
2. Boulder (63)
3. Fort Collins (29)
4. Lakewood (26)
5. Colorado Springs (24)
6. Aurora
7. Westminster
8. Broomfield
9. Centennial
10. Littleton
11. Golden
12. Highlands Ranch
13. Ignacio
14. Steamboat Springs
15. Bayfield
16. Longmont
17. Pueblo
18. Louisville
19. Carbondale
20. Erie

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Project Funding Cycle

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Colorado Carbon Fund's 1st Project


CLIMATE ACTION RESERVE OFFSETS LARIMER COUNTY LANDFILL GAS

- Colorado Carbon Fund committed \$230,000 to purchase offsets from a landfill gas-to-energy project in Larimer County
- 1st Climate Action Reserve listed project in CO
- Total GHG reductions expected to be 40,000 metric tons CO₂e/year
- Construction underway, electricity generation by Spring 2010

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Project Criteria

- Located in Colorado
- Additionality (beyond "business-as-usual")
- Focus on commercially viable energy projects, no sequestration/afforestation
- Realistic Baselines and Emission Reduction Quantification
- Monitoring, Verification, 3rd party Certification
- 40,000 metric tons CO₂-e reduced over project life
- We plan to pay \$5-12 per metric ton CO₂e



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Seeking Funding for a Project?

Step 1: Go to www.ColoradoCarbonFund.org

Step 2: Review project requirements

- Located in Colorado
- Additional – not business as usual
- Direct emissions reductions from energy projects
- Real, verifiable and permanent reductions
- At least 40000 metric tons of CO₂ equivalent reductions– it is possible to aggregate similar projects

Step 3: Submit a proposal using our form

Step 4: If proposal is approved, a more intensive review process begins

Questions? Email Monica at mthilges@climatetrust.org




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Update on Project Selection Process

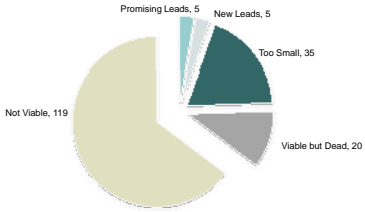
1. Pipeline overview
2. Promising leads
3. Small scale leads
4. Summary




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Update on Project Pipeline

184 Project Leads Evaluated to date



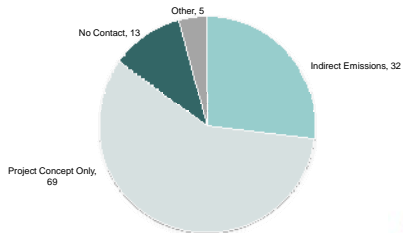
Category	Count
Not Viable	119
Too Small	35
Viable but Dead	20
Promising Leads	5
New Leads	5




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Update on Project Selection Process

119 Leads = Not Viable Projects



Category	Count
Project Concept Only	69
Indirect Emissions	32
No Contact	13
Other	5



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Update on Project Selection Process

Promising leads for Certified Offsets

- Coal mine methane – on hold
- Anaerobic digester – 6+ months out
- Co-digesters – planning stages
- Cogeneration – on hold

New leads

- Anaerobic digesters
- Coal bed methane
- Landfill gas-to-electricity




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Update on Project Selection Process

Common Themes in Promising Project Leads

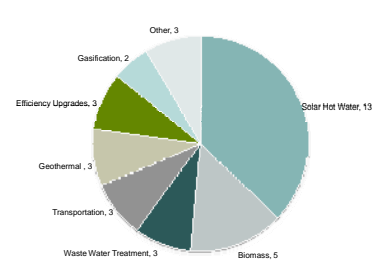

- Large scale
- Methane reductions
- Sectors which are unlikely to be capped
- Possible certification
- Long development timeline
- Lower co-benefits
- Relatively inexpensive



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Update on Project Selection Process

Small Scale Offset Project Leads





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Update on Project Selection Process

Common Themes Among Small Project Leads

- Carbon dioxide reductions
- Displace fuels that are likely to be capped
 - Natural gas – 2016
 - Transportation fuels – 2012
- Certification may not be possible
- Higher co-benefits
- Distributed across the state




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Update on Project Selection Process

Solar Hot Water

- Displaces natural gas – 2016 cap
- American Reinvestment and Recovery Act excludes pools

Description	Cost	Annual	Project life	10% of costs price per ton
No pool	\$90k	9 tons	45 tons	\$200
Multiple indoor pools	\$150k	30 tons	150 tons	\$100
Single indoor pool	\$350k	54 tons	270 tons	\$130
Other swimming pool uses	\$460k	1,221 tons	6,105 tons	\$8




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Update on Project Selection Process

Biomass

- Displace fuels capped in 2016
- May utilize pine beetle kill

Description	Cost	Annual	Project life	10% of costs price per ton
Building heat	\$60k	46 tons	230 tons	\$26
School boilers	\$1,500k	230 tons	1,150 tons	\$130
Large pellet boiler	\$900k	398 tons	1,990 tons	\$45




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Update on Project Selection Process

Waste Water Treatment plants

- Displace natural gas – 2016 cap
- Displace transportation fuels – 2012 cap
- Utilize waste gas

Description	Cost	Annual	Project life	10% of costs price per ton
Natural gas displacement	\$1,900k	1,231 tons	6,155 tons	\$31



Update on Project Selection Process


Transportation Sector

- Displace gasoline & diesel – 2012 cap

Ground Source Heat Pump

- Displace natural gas – 2016 cap
- Utilize clean energy

Description	Cost	Annual	Project life	10% of costs price per ton
Fuel oil boiler	\$192k	29 tons	145 tons	\$132




Update on Project Selection Process

Energy Efficiency

- Displaces natural gas – 2016 cap
- Support GEO's other programs
- Difficult to verify


Description	Cost	Annual	Project life	10% of costs price per ton
Multiple boiler replacement	\$9,870k	631 tons	3,155 tons	\$313
Cogeneration	\$436k	97 tons	485 tons	\$90



Update on Project Selection Process

Themes Among Small Project Leads

- Carbon dioxide reductions
- Displace fuels that are likely to be capped
 - Natural gas – 2016
 - Transportation fuels – 2012
- Certification may not be possible
- Higher co-benefits
- Distributed across the state



Update on Project Selection Process

Minimum Price per Ton



Project Type	Minimum Price per Ton
Solar Hot Water	\$100
Biomass	\$45
Waste Water	\$31
Gas/Fuel	\$132
Efficiency	\$313



Update on Project Selection Process

Summary

Few large scale project leads

- Cost \$5-12 per ton
- Lower co-benefits
- Central location
- Can be certified

Many small scale project leads

- Cost \$8-300+ per ton
- Higher co-benefits
- Distributed statewide
- Unlikely to be certified



