Supplemental Environmental Projects

RE/EE SEPs for the Present and Future

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Colorado’s SEP Policy

- Multi-media benefits (no nexus)
- Geographic nexus
- Emphasizes P2, E2, alternative energy
- Other creative projects
- No or lower multiplier for certain projects
- Traditional: emissions reduction projects
- Quantify environmental benefits
- Submit SEP Completion Report
- EPA does not have authority to approve or disapprove SEPs
Pollution Prevention SEPs

- If strong P2 project, 1:1 multiplier

$15,000 penalty = $15,000 SEP value
Pollution Prevention SEPs

- If strong P2 project, 1:1 multiplier
- Breakeven analysis
Pollution Prevention SEPs

- If strong P2 project, 1:1 multiplier
- Breakeven analysis
- Small businesses do P2 assessment as phase 1 and agree to implement P2 projects as phase 2 (or pay balance)

*Phase 1: Assessment*
*Phase 2: Implementation*
Pollution Prevention SEPs

- Sustainable / green building projects (hospitals, schools, visitor centers) (SBIC & LEED)
- Purchase and implementation of chemical inventory and tracking software
- Equipment upgrades:
  - Solvent stills upgrades
  - Installation of secondary containment under processing areas
  - Sludge presses
  - Solvent replacement
  - Process equipment replacements
Energy Efficiency SEPs

- Implement E2 project and savings re-invested in other environmentally beneficial projects
Energy Efficiency SEPs

- Implement E2 project and savings re-invested in other environmentally beneficial projects
- Break-even analysis
Energy Efficiency SEPs

- Implement E2 project and savings re-invested in other environmentally beneficial projects
- Break-even analysis
- Environmental cost accounting
Energy Efficiency SEPs

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- Green lights project (university)
Energy Efficiency SEPs

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- Green lights project (university)
- E2 assessment project (aerospace)
Energy Efficiency SEPs

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- Break-even analysis
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- Green lights project (university)
- E2 assessment project (aerospace)
- Insulation project (university)
Energy Efficiency SEPs

- Implement E2 project and savings re-invested in other environmentally beneficial projects
- Break-even analysis
- Environmental cost accounting
- Green lights project (university)
- E2 assessment project (aerospace)
- Insulation project (university)
- Light change out (airport)
Alternative Energy SEPs
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Wind Power SEP (Manufacturer)

- $316,000 civil penalty
- 1:1.2 multiplier, $303,000 SEP
- Premium 2.5 cents per kWh
- Purchase wind power for 5 years
- Utility set up escrow account
- Total kWh 12,134,400 purchased for 5 years
- Build turbine to meet demand for SEP
Alternative Energy SEPs
Wind Power SEP (Manufacturer)

- Emissions avoided
  - NOx 97 tpy
  - SO$_2$ 73 tpy
  - CO$_2$ 3,640 tpy

- Environmental benefits equivalent to:
  - 4.85 million vehicle miles not traveled per month
  - 1,820 tons coal not burned
  - 1,011 acres trees planted

- Challenges: contract, accounting, logistics

- Project team: Company, NREL, USDOE, PSCo, L&WF
Alternative Energy SEPs

- Partnership with NREL, L&WF, USDOE
Alternative Energy SEPs

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- Fund for alternative energy projects managed by StEPP Foundation ($1.2 million into fund)
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- Methane-recovery system (hog farm)
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- Fund for alternative energy projects managed by StEPP Foundation ($1.2 million into fund)
- Methane-recovery system (hog farm)
- Fuel cell and solar energy projects
Alternative Energy SEPs

- Partnership with NREL, L&WF, USDOE
- Fund for alternative energy projects managed by StEPP Foundation ($1.2 million into fund)
- Methane-recovery system (hog farm)
- Fuel cell and solar energy projects
- Natural gas fueling station and alternative energy vehicles (natural gas company and landfill)
Community-Based SEPs

- Community donation
  - Escrow account
  - Benefit local community - focus on local needs
  - Projects submitted to panel
  - Comply with SEP policy
  - RMSM and Conoco
Community-Based SEPs

- Community donation (steel processor)
- Allow community to decide where money spent (paper manufacturer)
Community-Based SEPs

- Community donation (steel processor)
- Allow community to decide where money spent (paper manufacturer)
- Donation for green composting (hog farm)
Community-Based SEPs

- Community donation (refinery)
- Allow community to decide where money spent (paper manufacturer)
- Donation for green composting (hog farm)
- Tree planting (grocery store)
Community-Based SEPs

- Community donation (refinery)
- Allow community to decide where money spent (paper manufacturer)
- Donation for green composting (hog farm)
- Tree planting (grocery store)
- Fund community household chemical roundup program (refinery)
Community-Based SEPs

- Community donation (refinery)
- Allow community to decide where money spent (paper manufacturer)
- Donation for green composting (hog farm)
- Tree planting (grocery store)
- Fund community household chemical roundup program (refinery)
- E2 assessments for citizens/employees
Other Projects

- Education and outreach: industry and individual
- Environmental Management Systems
- Fire Impacted Watershed Fund
- Wetlands restoration / habitat recovery / enhancements for threatened and endangered species / conservation easements
- Mentoring efforts
- Quality of life projects (tree planting, noise reduction, odor control, wildlife protection)
- Traditional control and monitoring projects
Future

- Flexibility to allow multi-media, alternative energy, community, and education projects
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- Educational material and systems for environmental accounting
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- Educational material and systems for environmental accounting
- Coordination between state/federal agencies
- Measure outcomes for emissions reductions and other environmental benefits
- Partnerships with universities, governmental agencies, not-for-profits