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ENERGY SUPPLY TECHNICAL WORK GROUP

DRAFT "GROUP E" STRAW PROPOSALS

MARCH 24, 2006

| # | POLICY NAME | LONG LIST# | VOLUNTEER GROUP | EMAIL ADDRESSES |
|----------------------------|---|--|--|--|
| A. RENEWABLE ENERGY | | | | |
| ES-1 | Mandate(s) for Renewable Energy (RPS, etc.) | 1.1 | Burks, Griscom, Groenwold, Luce, Melton, O'Hare, [Sandia?] | jburks@pnm.com dgriscom@rdcnm.org kgroenewold@nmelectric.coop benluce@nmccae.org dmelton@sacredpowercorp.com craig.ohare@state.nm.us |
| ES-2 | Financial Incentives for Distributed Renewables | 1.2, ~1.4, 1.5, ~1.9, 5.2, ~5.3 | Ely, Griscom, Hoodenpyle, Luce, Melton, Pilz, Ramakka, Singer (RCI), Smith | wpilz@pnm.com dgriscom@rdcnm.org agrienergy@hotmail.com benluce@nmccae.org dmelton@sacredpowercorp.com jim_ramakka@nm.blm.gov tsinger@nrdc.org smithgr1@bp.com |
| ES-3 | Renewable energy transmission and storage | ~1.9 | Gregory, Ihle, Luce, Michel, O'Hare, [Sandia?] | sfgregory@spinn.net jack.ihle@xcelenergy.com benluce@nmccae.org stevensmichel@msn.com craig.ohare@state.nm.us |
| ES-4 | Financial Incentives for Centralized Renewables | ~(1.1, 1.2, 1.6) | Ely, Griscom, Hoodenpyle, Luce, Melton, Pilz, Ramakka, Singer (RCI), Smith | wpilz@pnm.com dgriscom@rdcnm.org agrienergy@hotmail.com benluce@nmccae.org dmelton@sacredpowercorp.com jim_ramakka@nm.blm.gov tsinger@nrdc.org smithgr1@bp.com |
| ES-5 | R&D including Energy Storage | ~(1.3, 1.9) | Guthrie, Michel, [Sandia?] | gguthrie@lanl.gov stevensmichel@msn.com |

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|--|---|------------------------------|--|--|
| <i>B. CENTRALIZED NON-RENEWABLE ELECTRICITY</i> | | | | |
| ES-6 | Advanced Coal/Fossil Technologies (e.g., IGCC with carbon capture) | 2.1, 2.2 | Burks, Ely, Groenewold/[Sub?], Ihle, Luce, O’Hare, Potturi, [Sandia? (Dave Borns)], Singer (RCI) | jburks@pnm.com sandra.ely@state.nm.us kgroenewold@nmelectric.coop jack.ihle@xcelenergy.com benluce@nmccae.org craig.ohare@state.nm.us prasad.potturi@state.nm.us tsinger@nrdc.org |
| ES-7 | Nuclear Relicensing & Upgrading | 3.2 | Groenewold, Kuswa, Michel, Miller | kgroenewold@nmelectric.coop gwkuswa@sandia.gov stevensmichel@msn.com amiller@pnm.com |
| <i>C. GRID & DEMAND-SIDE POLICIES</i> | | | | |
| ES-8 | Incentives and Barrier Reductions for Combined Heat & Power (CHP) | 4.1, 5.2 | Barnes, Brinker (RCI), Griscom Hoodenpyle, | rbarnes@americangypsum.com cbrinker@swenergy.org dgriscom@rdcnm.org agrienergy@hotmail.com |
| ES-9 | Demand-Side Management, Energy Efficiency, and Integrated Resource Planning (IRP) (Broad demand management of electricity and natural gas, focused on consumption, not peaks) <i>(Note: ES will leverage RCI’s work on this option.)</i> | ~(5.7, 5.9, 5.10) + | Burks, Gregory, Smith, Singer (RCI) | jburks@pnm.com sfgregory@spinn.net smithgr1@bp.com tsinger@nrdc.org |
| ES-10 | Transmission capacity and corridors | ~5.3 | Ihle, Michel, Ramakka | jack.ihle@xcelenergy.com stevensmichel@msn.com jim_ramakka@nm.blm.gov |

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| # | POLICY NAME | LONG LIST# | VOLUNTEER GROUP | EMAIL ADDRESSES |
|---|---|---------------------------|---|--|
| <i>D. OIL & GAS POLICIES</i> | | | | |
| ES-11 | CO2 Capture and Storage or Reuse (CCSR) in oil & gas and other operations; includes storage or reuse of power sector CO2 (see ES-6) | ~(7.14, 2.2) | Ames, Ely, Epel, Fesmire, Gantner, Guthrie, Groenewold, Kuswa, Lee, Smith, Weaver, Zak | ames@westernlaw.org sandra.ely@state.nm.us jbepel@duke-energy.com mark.fesmire@state.nm.us bgantner@br-inc.com gguthrie@lanl.gov kgroenewold@nmelectric.coop gwkuswa@sandia.gov lee@nmt.edu smithgr1@bp.com lany.weaver@state.nm.us bdzak@sandia.gov |
| ES-12 | Methane reduction in oil & gas operations – Best Management Practices (BMPs) & Partner Reduction Opportunities (PROs) | ~(7.4, 7.5, & 7.9 - 7.14) | Ames, Epel, Fesmire, Gantner, Groenewold, Smith, Weaver | ames@westernlaw.org jbepel@duke-energy.com mark.fesmire@state.nm.us bgantner@br-inc.com kgroenewold@nmelectric.coop smithgr1@bp.com lany.weaver@state.nm.us |
| ES-13 | CO2 reduction from fuel combustion in oil & gas operations | ~(7.1, 7.2, 7.3) | Ames, Epel, Gantner, Ramakka, Smith, Weaver | ames@westernlaw.org jbepel@duke-energy.com bgantner@br-inc.com jim_ramakka@nm.blm.gov smithgr1@bp.com lany.weaver@state.nm.us |
| <i>E. EMISSIONS POLICIES</i> | | | | |
| ES-14 | GHG Cap & Trade Program (includes offsets policies) | (11.4, 11.2) | Burks, Green, Groenewold, Ihle, Luce, Michel, O’Hare, Singer (RCI), Tavarez (RCI), Whaley (RCI) | jburks@pnm.com gsgwin@aol.com kgroenewold@nmelectric.coop jack.ihle@xcelenergy.com benluce@nmccae.org stevensmichel@msn.com craig.ohare@state.nm.us tsinger@nrdc.org itavarez@cabq.gov don@navajo-refining.com |

ES-14: GHG Cap & Trade Program

1. Policy Description:

a. Lay description of proposed policy action:

A cap and trade system is a market mechanism in which CO2 emissions are limited or capped at a specified level, and those participating in the system can trade permits (a permit is an allowance to emit one ton of CO2). By allowing trading, participants with lower costs of compliance can overcomply and sell their additional reductions to participants for whom compliance costs are higher. In this fashion, overall costs of compliance are lower than they would otherwise be.¹

For every ton of CO2 released, an emitter must hold a permit. Therefore, the number of permits issued or allocated is, in effect, the cap. The government can give permits away for free according to any one of many different criteria to those participating in the cap and trade system (or even to those who are not), auction them, or some combination of the two. Participants can range from a small group within a single sector to the entire economy, and the compliance obligation can be implemented “upstream” (at the fuel extraction or import level) or “downstream” at points of fuel consumption.

An important consideration for New Mexico with respect to a cap and trade program is the sources and sectors to which it would apply. Jurisdictions elsewhere, for instance, are considering power-sector-only programs. In New Mexico, however, non-tribal power sector emissions are less than 20% of the GHG inventory. Some TWG members suggested that this could still provide the basis for a “start simple, then expand” approach, most agree that analysis of this option should include tribal emissions and multiple states. Ideally, other sectors would also be incorporated, e.g., through a broad, economy-wide, upstream cap and trade program.

b. Policy Design Parameters:

i. Implementation level(s) beyond BAU:

Recognizing that the purpose is to conduct a modeling/assessment exercise, not to define the details of a regulatory program, the volunteer group suggested: (a) Incorporating the Governor’s targets as the cap; (b) evaluating such a cap over the WECC states (subject to

¹ A good discussion of cap and trade design issues was recently assembled by the Climate Action Team in California. It can be referenced at: http://www.climatechange.ca.gov/climate_action_team/reports/2005-12-08_CAP+TRADE_REPORT.PDF

minor variations as needed to facilitate analysis) and on a national basis; and if possible, (c) seeing how California’s new procurement decisions may factor into the program.

ES-4a: Several Western states (*specific states to be identified with input volunteer group*) implement a regional power sector cap and trade system that begins in 20__ with a cap equal to year 2000 emissions. By 20__, the cap will be equal to ___% below 2000 emissions. By 20__, the cap will be equal to ___% below 2000 emissions. By 20__, the cap will be equal to ___% below 2000 emissions.

ES-4b: A national power sector cap and trade system is implemented that begins in 20__ with a cap equal to year 2000 emissions. By 20__, the cap will be equal to ___% below 2000 emissions. By 20__, the cap will be equal to ___% below 2000 emissions. By 20__, the cap will be equal to ___% below 2000 emissions.

Other issues to consider:

- Applicability (sources & sectors included)
- Gases included
- Permit allocation rules (method; options for new market entrants)
- Generation-based or load-based; leakage concerns
- Linkage to other trading systems
- Banking and borrowing; early reduction credit
- Inclusion of emission offsets (within or outside sector, geography)
- Incentive opportunities (e.g., interaction with other pollution regulations like PA’s EDGE program)

ii. Timing of implementation:

See above.

iii. Implementing parties:

Companies

iv. Other

c. Implementation Mechanism(s): Indicate which mechanisms are to be used, and describe the specific approach that is proposed

- i. Market-based mechanisms with underlying regulatory obligation.

2. BAU Policies/Programs, if applicable:

- a. No cap & trade system is in place in New Mexico.

3. Types(s) of GHG Benefit(s):
 - a. CO₂: A cap & trade system is a direct limit on CO₂ emissions. Reductions are determined by the level of the cap.
 - b. CH₄
 - c. N₂O
 - d. HFC’s, SFC’s
 - e. Black Carbon: To the extent that generation from coal and oil declines under a cap and trade system, black carbon emissions will also decrease.

 4. Types of Ancillary Benefits and or Costs, if applicable:
 - a. The shift from fossil fuel generation as a result of a cap and trade system will lead to reductions in criteria air pollutants and, consequently, reduce health impacts and associated health costs.
 - b. Allowing “offsets” from outside the capped sector can create the incentive to quantify and reduce GHG emissions from sources in other sectors.
 - c. Etc.

 5. Estimated GHG Savings and Costs Per MMTCO₂e:
 - a. Summary Table of:
 - i. GHG potential in 2010, 2020, 2050
 - ii. Net Cost per MMTCO₂e in 2010, 2020, 2050
 - b. Insert Excel Worksheet showing summary GHG reduction potential and net cost

 6. Data Sources, Methods and Assumptions:
 - a. Data Sources
 - b. Quantification Methods
 - c. Key Assumptions

 7. Key Uncertainties if applicable:
 - a. Benefits
 - b. Costs

 8. Description of Ancillary Benefits and Costs, if applicable:
 - a. Description of issue #1
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- b. Description of issue #2
 - c. Etc.
9. Description of Feasibility Issues, if applicable:
- a. Description of issue #1
 - b. Description of issue #2
10. Status of Group Approval:
- a. Pending
 - b. Completed
11. Level of Group Support:
- a. Unanimous Consent
 - b. Supermajority
 - c. Majority
 - d. Minority
12. Barriers to consensus, if applicable (less than unanimous consent):
- a. Description of barrier #1
 - b. Description of barrier #2
 - c. Etc.