Alert: RTD Commuters, Residents & Taxpayers

In light of the Denver region's air-quality problems and the recent voter-approved 66% RTD sales tax increase to fund the $4.7 billion, 12-year FasTracks project, a group of local residents, businesses, non-profit, public health and conservation groups is working to persuade our your publicly-elected RTD Board to *stop* buying heavy-duty diesel buses and instead *begin operating less polluting, less noisy natural gas buses.*

We're asking for a little of your time – yes, during this holiday season.

On Tuesday, December 14, the RTD Board will vote to buy between 183 and 543 heavy-duty buses. Will RTD buy diesel buses, natural gas buses or both? Unfortunately, RTD staff is recommending that the RTD Board buy 100% diesel buses.

Immediately before casting their vote, the RTD Board will hear public comment. Despite the substantial cost of this purchase and the long-term consequences, the decision is being made on an evening when public input may be extraordinarily limited. Many people are preoccupied with holiday parties, Christmas shopping, vacation, out-of town guests, etc., and are unlikely to attend.

Furthermore, there are a total of 15 publicly-elected RTD Board members, six of whom are retiring from the Board. The newly elected Board members will take office in January. **Given the tremendous cost and long-term public health and air-quality considerations, we believe the newly-elected Board should make this important decision.**

What can you do?

After reviewing this fact sheet, bring a friend and attend the following RTD Board Meeting:

Date: Tuesday, December 14, 2004

Time: 5:30 p.m. to 9:00 p.m.

Location: RTD Board Meeting Room

Address: 1600 Blake Street

Directions: On Blake Street between the 16th Street Mall and 17th Street in LoDo

Parking: On-street parking available. (Easily accessible by light rail, bus and/or the 16th Street Mall Shuttle.)

When you arrive at RTD headquarters, sign-in. When they call your name, tell your elected RTD Board of Directors, *in no more than 2-3 minutes*, why you think should stop buying diesel buses and start using natural gas buses. If you are uncomfortable testifying but support natural gas buses, simply show up in a silent demonstration of support

If you can't attend RTD's public meeting, please register your opinion by visiting **www.RTD-Denver.org** (click on **Board of Directors** in the far left column) and/or by calling the RTD Board office at **303-299-2303**.

Background

Despite the public health, air-quality, noise and environmental benefits associated with operating a natural gas bus fleet, **RTD staff continues to urge the RTD Board to purchase between 183 and 543 heavy-duty diesel buses from Gillig — a California-based bus manufacturer — and the only major bus manufacturer in North America that does *not* manufacture natural gas buses.**

The idea of Downtown Denver residents, businesses, commuters and tourists immersed in a sea of diesel fuel emissions from hundreds of heavy-duty diesel buses, shuttles, and Diesel Multiple Unit (DMU) "trains" converging in Downtown Denver from transit corridors throughout the metro-region is not what FasTracks supporters had in mind. It's the wrong choice.

Continued reliance on dirty diesel buses is bad for metro-Denver's image. It's bad marketing, bad for local business and bad for economic development. It's bad for infants, small children, seniors and people with respiratory problems.

It's also unnecessary, particularly in view of a readily available, widely used and practical alternative -- natural gas buses.

The Facts

Emissions, Air Quality & Health Impacts

1. On April 15, 2004 the EPA designated the Denver Metro region as an ozone non-attainment area for frequently violating the Federal Clean Air Act's 8-hour ozone standard for three consecutive years.

2. RTD oversees the operation of one of the largest heavy-duty diesel fleets in the Denver metro region – well over 1,000 heavy-duty diesel buses in addition to approximately 900 para-transit vans. As such, RTD possesses a unique responsibility to lead the region's air quality attainment effort.

3. NOx tailpipe emissions from heavy-duty diesel engines are a primary contributor to ozone non-attainment and particulate matter (brown cloud) in the Denver-metro region.

4. Diesel exhaust comprises 20-30% of all NOx emissions in the metro-region.

5. We support FasTracks knowing it will provide many exciting new and vital rail and bus services and opportunities throughout the metro region. However, it will also bring many years of increased emissions from:
    - Heavy-duty diesel construction vehicles and equipment operating on each corridor
    - Increased traffic delays along construction corridors.

By operating a new natural gas bus fleet, RTD can help offset these increased emissions.

6. The results of a study published in the November 2004 issue of the **Journal of the American Medical Association**, indicated that there is "a statistically significant association between short-term changes in ozone and mortality on average for 95 large U.S. urban communities. . ."

7. Numerous medical studies link diesel exhaust to decreased lung function, increased severity and frequency of asthma attacks and other respiratory problems, especially among children and seniors.

8. The U.S. EPA classifies diesel exhaust as a "probable human carcinogen."

9. On the basis of adverse health affects of fine particulates matter and ozone, the U.S. EPA recommends that fleets operators should purchase "vehicles that run on cleaner fuels like compressed natural gas."

10. Because RTD proposes to purchase 543 buses and because each bus will operate for a minimum of 12 years, RTD's decision will have long-term metro-regional air-quality and public health impacts.

11. Natural gas buses emit 50% less NOx, 90% less particulate matter ($PM_{2.5}$) and substantially less noise than diesel buses.

12. Your elected RTD Board is in a strong position to lead by example and do its part to bring Denver's air quality into compliance with the Clean Air Act.

Natural Gas Buses – A National Perspective

1. Natural gas bus fleets are successfully operated throughout the nation — including in high altitudes. For example:
   - The City of Denver successfully operates a natural gas bus fleet at DIA, and has for the last four years.
   - At an elevation of 7,000 feet, Santa Fe, New Mexico's entire bus fleet is fueled by natural gas.

2. Other U.S fleets that have recently bought and continue to purchase natural gas buses include:
   - Atlanta Metro Rapid Transit
   - Las Angeles Metro Transit Authority
   - San Diego Metro Transit System
   - Sacramento Transit
   - Ft. Worth Transit
   - El Paso Transit
   - Foothill Transit (Southern California)
   - Riverside Transit (Southern California)

3. Today's natural gas buses meet all of RTD's performance criteria including range and engine life. In fact, at some transit agencies in the United States, natural gas engines are lasting twice as long as their diesel counterparts before having to be rebuilt.

The Future

1. RTD staff expects the RTD Board and the public to believe that natural gas buses "are the past, not the future." This view ignores basic industry trends and facts. For example:
    A. In the past 5-years, 25% of all bus orders in the U.S. have been for natural gas. This trend does not appear to be changing.
    B. In 2002, 8% of all heavy-duty transit bus fleets in the U.S. were natural gas fueled. In 2004, that number increased to 13%.
    C. A compelling article in the November 22, 2004 *Wall Street Journal* reported that countries around the world are rapidly turning away from diesel fueled buses to natural gas to decrease their dependence on foreign oil and improve air quality. For example:
        - New Deli, India recently replaced its *entire diesel bus fleet* with 10,200 natural gas buses;
        - Bejing, China is introducing a new state of the art natural gas fleet for their 2008 Olympic Games; and
        - Tehran, Iran "where plentiful oil keeps diesel dirt cheap, wants to put thousands of natural gas buses on the street."

2. Despite the fact the natural gas is a proven technology, it appears that staff would prefer to purchase diesel electric hybrids instead natural gas. This logic is severely flawed.
    A. Diesel hybrids are still an unproven technology – there are fewer than 500 diesel hybrid buses on the road today.
    B. While diesel hybrids achieve improved fuel economy, hybrid buses still use the same dirty diesel engine for their primary source of power.
    C. Diesel hybrids only reduce fuel consumption by 20% or so, whereas natural gas buses reduce our dependence on foreign oil on a gallon for gallon basis.

3. A typical heavy-duty hybrid bus requires *at least* 86 lead-acid or nickel-metal hydride batteries over the 12-year bus life. There is no clear answer for how to dispose of this new source of hazardous waste.

Imported Oil

- RTD relies almost exclusively on diesel fuel. In other words, all of RTD's eggs are in one basket -- with the diesel fuel industry. Conflicts in the Middle East, diminishing oil supplies, increasing oil costs, a desire for cleaner air and the fact that natural gas fuel costs significantly less than diesel fuel have spurred many transit agencies and public bus companies to diversify their bus fleets.

- While natural gas is produced and abundantly available in Colorado, Wyoming and many western states, diesel fuel is primarily based on oil imported from the Middle East. The U.S. now imports 60% of its oil.

- As civil unrest in Iraq and other Middle Eastern countries continue, oil tankers are increasingly at-risk of becoming terrorist targets raising questions about the long-term cost, stability, and availability of imported oil.

Cost Analysis

1. Due to the small number of bids RTD received and the resulting lack of sufficient comparative data, RTD is unable to conduct an accurate life-cycle cost analysis.

2. In the last year, the cost of oil has soared 30% to over $50 per barrel and has driven the cost of retail diesel fuel up to $2.17 per gallon. Conversely, retail natural gas prices have increased by only 6% to about $1.75 per gallon equivalent.

3. **Natural gas for public transit agencies, like RTD, remains 25-30% less expensive than diesel.**

4. In transit agencies throughout the nation, the purchase price for a natural gas bus is typically 10% to 15% greater than for a diesel bus. RTD staff, however, claims the incremental procurement for natural gas buses is 300% to 800% — or about $85,000 per bus. Because obstacles to competition and unreasonable timelines for delivery of buses appear to have been built into the RTD's bid specifications and process, only three bids were submitted.

5. The incremental cost for natural gas buses can be partially funded through outside sources that RTD appears not to have pursued. For example:
   A. The StEPP Foundation is a 501(c)(3) non-profit organization dedicated to helping communities realize a cleaner and safer environment by helping to fund public interest energy efficiency, clean energy and pollution prevention projects. The StEPP Foundation is partnering with Clean Energy to funding some incremental costs of a natural gas bus fleet.
   B. Congestion Mitigation and Air Quality (CMAQ) Funds
   C. Other Federal and state governments funds and grant opportunities

6. Assuming RTD staff's cost estimates the increased cost (incremental procurement cost of $8.5 million) for 100 natural gas buses is a tiny fraction of RTD's budget – roughly 1.5%.
   A. **FasTracks** Budget = $4.7 billion
   B. RTD's **Fiscal Year 2004** Budget
      - Total Appropriation = $560.3 million (plus $170.4 million unspent in FY2003)
      - Operating Budget = $308.1 million
   C. RTD's **Fiscal Year 2005** Budget
      - Total Appropriation = $528.1 million (plus $155 million unspent in FY2004)
      - Operating Budget = $328.1 million

7. Even assuming RTD staff's cost estimates for purchasing natural gas buses and modifying its Platte Bus Garage, the cost to RTD would be an average of 2.3 pennies, per RTD rider, per trip.

8. RTD staff indicates the cost to "retrofit" its 250-bus indoor Platte Parking Garage for natural gas buses is $14 million. St. Louis, Missouri recently upgraded its indoor parking facility to accommodate its natural gas fleet, including a methane alarm, for approximately $3 million. Like RTD's Platte facility, the St. Louis facility was constructed in 1984, covers approximately 5-acres and stores 250 buses.

9. RTD receives funding from the Federal Transit Administration (FTA) that can be used to purchase both diesel and natural gas buses. However, the FTA allows 90% of the incremental cost to be reimbursed on natural gas buses versus only 80% of the bus cost on diesel buses.

10. While natural gas buses may cost more today, continued air-quality non-attainment could cost even more.

Problems with RTD Staff's "Diesel-Only" Recommendation

1. RTD's RFP appears to favor one particular manufacturer — a California-based diesel bus company, called Gillig, which only produces diesel buses. (Gillig is believed to be the only major bus manufacturer in North America that does ***not*** produce natural gas buses.)

2. Only three out of twelve bus manufacturers chose to bid on a lucrative five-year, 543-bus contract worth a possible $150 to $200 million. Why?

   The three bidders were:
   - **Gillig** — a California-based *diesel-only* bus manufacturer.
   - **Neoplan** — a Lamar, Colorado-based bus manufacturer that produces natural gas buses.
   - **Millennium** — A new manufacturer that has not yet produced a single bus.

   RTD has been vocal about the fact it is unhappy with a few of Neoplan's older-model buses. Consequently, it appears unlikely that RTD would consider contracting with Neoplan in the near future.

   In the case of Millennium, it is unlikely RTD staff would seriously consider contracting with a manufacturer for a large bus order when that company has no track record.

3. Clean Energy offered to take RTD Board members on a 2-day fact-finding mission, at no cost to taxpayers, to several large transit agencies in California that successfully operate large natural gas bus fleets. Clean Energy believes the RTD Board would substantially benefit from on-site, first-hand introductions to natural gas bus operations. RTD legal council dismissed the proposed fact-finding mission as a "junket" and essentially prohibited the Board from participating.

4. When asked, multiple bus manufacturers, who chose not to submit proposals to RTD, raised questions about RTD's RFP specifications and what appeared to be unreasonable obstacles to competition. For example:

   - RTD's inflexibility on the delivery schedule eliminated multiple natural gas bus manufacturers from competition. Several well-respected natural gas manufacturers requested that RTD grant a three-week to 90-day extension for delivery of RTD's first round of buses. Their requests were denied. Given the

magnitude and long-term implications of this RTD's bus purchase, these modest requests for additional manufacturing time are more than reasonable.

- Gillig submitted far fewer RFP specification questions to RTD than the other major bus manufacturers. Why was Gillig so intimately familiar with what staff wanted?
- Gillig was required to make minimal modifications to comply with RTD's RFP specifications; whereas, other bus manufacturers were required to make substantial more modifications. Again, why was Gillig more intimately familiar with staff desires and expectations?
- RTD accepted 71% of Gillig's requested specification changes (accepted equals) as compared with an average of 45% for the other bus manufacturers. Why is the disparity so significant?

5. RTD staff assures the RTD Board they intend to operate "clean diesel" buses but yet recommend buying dirty diesel technology without advanced emission control equipment. In a written response to an inquiry from Gillig, RTD acknowledged that ultra-low sulfur diesel fuel **may not be available in the Denver-metro area until late 2006**. Small wonder the 183 diesel buses Gillig is trying to sell RTD are so much less expensive than natural gas buses – they cost less, at least in part, because they don't meet the EPA's 2007, much less the EPA's 2010, air-quality standards for NOx and PM emissions.

The Bottom Line

The RTD Board directed staff to solicit natural gas bus bids and contemplate the comparative merits of heavy-duty natural gas with the expectation that each bus manufacturer would be encouraged, when possible, to submit a bid for compressed natural gas, liquefied natural gas, diesel and hybrid diesel buses and thereby provide the board with vital comparative data.

Given the circumstances outlined above, the long-term public health and air-quality considerations, and the tens of millions of tax dollars at stake, the three bids submitted are inadequate. They fail to provide the RTD Board of Directors with sufficient information on which to base a public policy decision.

Please join us in urging the RTD Board to:

1. Direct staff to fully comply with the Board's original intent to gather and compare bids and proposals from as many bus manufacturers as possible.

2. Direct staff to re-solicit bus bids and establish reasonable specifications, timelines and other provisions in the bid process that encourage rather than suppress maximum competition and enable staff to gather and provide the Board with vital information from as many bus manufacturers as possible.

3. Adopt a Board resolution expressly encouraging each and every bus manufacturer on RTD's list to submit bids on both compressed natural gas and diesel buses if said manufacturer produces one or more such buses. (In so doing, RTD can accurately assess the true cost and comparative merits of buying and operating natural gas buses and thereby make a more informed purchase.)

4. Authorize Board members to participate in fact-finding mission to visit transit agencies that successfully operate natural gas bus fleets to determine how and why they're successful. This fact-finding mission should include a visit to the City of Denver's natural gas bus operation at DIA. The City successfully operates 32 natural gas buses at DIA – and has for the last four years.

Should the RTD Board choose not to re-solicit bids and encourage all natural gas bus manufacturers on RTD's list to participate, we respectfully urge the Board to begin purchasing a 100% natural gas bus fleet based RTD's existing bus procurement schedule and the proposals/bids received.

For information, please contact the following:

- **American Lung Association of Colorado**
  1600 Race Street
  Denver, CO 80206
  phone: 303-388-4327
  website: www.alacolo.org

- **Colorado Environmental Coalition**
  1536 Wynkoop Street #5C
  Denver, CO 80202
  phone 303-534-7066
  Website: www.OurColorado.org
  Email: info@cecenviro.org

- **Clean Energy**
  4955 Peoria Street, Unit D
  Denver, CO 80239
  Phone: 303-882-1908 or 303-
  Website: www.CleanEnergyFuels.com

- **Environment Colorado**
  1530 Blake Street, Suite 220
  Denver, CO 80202
  Phone: 303-573-3871
  Website: www.environmentcolorado.org

- **The StEPP Foundation**
  P.O. Box 468
  Golden, CO 80402-0468
  Phone: 303-277-0932
  Website: www.steppfoundation.org
  Email: info@steppfoundation.org