

**CATF Staff Draft**  
**Concepts Underlying Key Numbers in the Straw Proposal**  
**August 18, 2006**

**Rate of Decline in the Cap (Issue 4)**

(The “median” position: Hold cap flat at base-year emission level from 2009 through 2011, then straight line decline to 2020 target. The “alternative” position: Hold cap flat through 2012, otherwise the same.)

The *Oregon Strategy for Greenhouse Gas Reductions* by the Governor’s Advisory Group on Global Warming (Dec. 2004) calls for a 10 percent reduction below 1990 greenhouse gas levels by 2020 and at least a 75 percent reduction below 1990 by 2050 (page ii). *The Strategy* estimates 1990 electricity emissions at 20.7 million metric tons (page B-3). This implies a linear decline of 0.45 million tonnes per year for 2020-2050. Assuming a reduction from base-year electric emissions of 3.84 million tonne, the average annual reduction would be 0.43 or 0.48 million tons per year through 2020 if the decline begins after 2011 or after 2012, respectively. These dates would allow either 4 or 5 years to implement reductions if legislation passed in mid-2007

**Auction 5 Percent of Allowances (Issue 6)**

(This is the “median” position)

Buying auctioned allowances is a flexible way for load-serving entities (LSEs) to comply with a load-based CO<sub>2</sub> cap. If Oregon consumer-owned utilities (COUs) reduced their 2004 emission by 17 percent by 2020, this would be 150,000 tonnes. This assumes all load growth is met through conservation and renewable generation and COU emissions are 150 pounds of CO<sub>2</sub> per MWh. If this COU reduction was met through purchases of allowances, this would be less than one percent of 2020 allowances. With a 5 percent auction there would plenty of auctioned allowances for other LSEs, even if COUs were given the option of buying allowances first at auction. As 5 percent is a small fraction of allowances, there is little need to auction less. The 5 percent auction assumes that only Oregon LSEs may participate in the auction.

If the auctioned amount were determined by rule, it might be less than 5 percent, depending on conditions. On the other hand, increasing the auctioned amount over time would be a way to separate the allocations from distant historical conditions. A higher percentage of auctions would allow more flexibility if there were differences in LSEs load growth and if resource stacks varied over time.

**Alternative Compliance Payment (Issue 10-1)**

(Staff straw proposal is \$40 per metric ton of CO<sub>2</sub>)

The alternative compliance payment is a firm cap on compliance costs. It is intended to be high enough that it will be needed only under unlikely scenarios of load growth and resource costs. It is the point at which costs justify breaking the cap. It is not designed as

payment in lieu of meeting the cap, but a safety valve if the overall design of the cap is outside expectations.

The \$40 value is derived from experience with the European Trading System for CO<sub>2</sub> allowances under the Kyoto Protocol. Since March 2005, ETS allowances have traded in the range of 10 to 30 euros. This is a range of \$13 to \$38 per tonne of CO<sub>2</sub> at the current exchange rate of \$1.28 per euro. The ETS closing price on Aug 17, 2006 was \$20 per tonne of CO<sub>2</sub>. This implies that a \$40 alternative compliance payment as a cap on compliance costs is consistent with the European experience. For comparison, the fine (alternative compliance payment) for failing to provide enough allowances in the EU ETS system is about \$51 per tonne of CO<sub>2</sub> at the current exchange rates through 2007. In 2008, the EU fine will rise to about \$128 per tonne.

### **Limits on Offsets (Issue 12)**

(The CCAP straw proposal is to limit offsets to 25% of each LSE's reductions from its base-year emissions)

In addition to meeting the governor's goal for greenhouse gas reductions, a benefit of a load-based cap is to begin on-system reductions that will insulate Oregonians from volatility in natural gas prices and future federal CO<sub>2</sub> regulations that will raise the costs of fossil fuels. Some offsets might be cheaper and easier than some on-system reductions. If there were no limit on offsets, LSEs might use offsets in early years instead of conservation and renewable generation that had costs below wholesale electricity market prices. These on-system CO<sub>2</sub> savings would have negative resource costs. Not only will offsets delay on-system reductions, it is unclear how offsets might count under future federal CO<sub>2</sub> reduction regulations.

Below-market conservation and renewable generation appear adequate to meet load growth in most scenarios. This indicates offsets should be limited to a portion of the CO<sub>2</sub> reductions. As the primary purpose of a load-based cap is on-system reductions, the offset cap should be limited to a modest portion of reductions. A 25 percent limit would have the effect of limiting use of offsets in early years when cost-effective reductions are readily available. In later years the amount of offsets that are allowed would grow. This may be the period when the cost and supply of on-system reductions are less certain.