# MEMORANDUM 

## TO: Mayor Prussing

FROM: City Comptroller
RE: Comparison of Costs of Hybrid Vehicle vs. Subcompact
DATE: January 9, 2008

One of the Council and City goals is to reduce the fuel usage of city vehicles. Toward that end, the City has replaced the 2 meter patrol vehicles with hybrid vehicles and has ordered a hybrid vehicle to replace the Ford Taurus in CD. In both these instances, it made sense from both an operational and financial consideration to purchase the hybrid.

The City also needs to replace a subcompact vehicle used by the inspectors in CD. Because the cost of this new Ford Focus subcompact under state purchasing is remarkably low $\$ 12,000$ (cost of hybrid under state purchasing is $\$ 24,000$ ), the financial cost of purchasing a hybrid vehicle in this case is considerably higher and there is no operational reasons to purchase the hybrid.

Attached is a spread show showing the present value cost comparison. Even assuming the cost of gas will increase $10 \%$ annually ( $\$ 7.78 /$ gallon in year 10 ), the present value of the subcompact is $\$ 15,991$ and the present value of the hybrid is $\$ 25,961$ or a savings of $\$ 9,970$ to purchase the Ford Focus subcompact.

While not abandoning the goal of purchasing more fuel efficient vehicles, my recommendation is to purchase the subcompact in this instance and continue to evaluate every vehicle purchase in the future.

If you agree, do you feel we need to bring this question to the attention of the City Council?

COMPARISON OF HYBRID CAR PURCHASES 01/09/08

| PRICE OF HYBRID | $\$ 24,000$ |  |
| :--- | ---: | ---: |
| PRICE OF SUBCOMPACT | $\$ 12,000$ |  |
| CURRENT PRICE OF GAS/GALLON | $\$$ | 3 |
| ASSUME GAS PRICE INCREASE 10\% . |  |  |
| ASSUME SUBCOMPACT MILEAGE | 25 MPG |  |
| ASSUME HYBRID MILEAGE | 30 MPG |  |
| ASSUME SAME REPAIR COST |  |  |


|  | FOCUS |  | MPG |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\$$ | 3.00 | 25 | FUEL | PV |


| PURCHASE PRICE |  |  |  | - | - | $\$$ | 12,000 |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | ---: | ---: |
| FUEL YR 1 | $\$$ | 3.30 | 132 | $\$$ | 436 | 0.952 | 415 |  |
| FUEL YR 2 | $\$$ | 3.63 | 132 | $\$$ | 479 | 0.907 | 435 |  |
| FUEL YR 3 | $\$$ | 3.99 | 132 | $\$$ | 527 | 0.864 | 455 |  |
| FUEL YR 4 | $\$$ | 4.39 | 132 | $\$$ | 580 | 0.823 | 477 |  |
| FUEL YR 5 | $\$$ | 4.83 | 132 | $\$$ | 638 | 0.784 | 500 |  |
| FUEL YR 6 | $\$$ | 5.31 | 132 | $\$$ | 702 | 0.746 | 523 |  |
| FUEL YR 7 | $\$$ | 5.85 | 132 | $\$$ | 772 | 0.711 | 549 |  |
| FUEL YR 8 | $\$$ | 6.43 | 132 | $\$$ | 849 | 0.677 | 575 |  |
| FUEL YR 9 | $\$$ | 7.07 | 132 | $\$$ | 934 | 0.645 | 602 |  |
| FUEL YR 10 | $\$$ | 7.78 | 132 | $\$$ | 1,027 | 0.614 | 631 |  |
| RESIDUAL VALUE $=\$ 2,000$ |  |  | $\$$ | - | 0.585 | $(1,170)$ |  |  |
|  |  | $10 \%$ |  |  |  |  |  |  |
| $\$ 7.30 / G A L . ~ Y R ~ 10=$ |  |  |  |  |  |  | $\$$ | 15,991 |


| HYBRID | MPG |  |  |  |  | PV |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | \$ | 3.00 | 30 |  | FUEL |  |  |  |
|  | PRICE/GAL. |  | \# GAL. |  | \$\$ | FACTOR | PV \$ |  |
| PURCHASE PRICE |  |  |  |  | - | 1.00 | \$ | 24,000 |
| FUEL YR 1 | \$ | 3.30 | 110 | \$ | 363 | 0.952 |  | 346 |
| FUEL YR 2 | \$ | 3.63 | 110 | \$ | 399 | 0.907 |  | 362 |
| FUEL YR 3 | \$ | 3.99 | 110 | \$ | 439 | 0.864 |  | 379 |
| FUEL YR 4 | \$ | 4.39 | 110 | \$ | 483 | 0.823 |  | 398 |
| FUEL YR 5 | \$ | 4.83 | 110 | \$ | 531 | 0.784 |  | 417 |
| FUEL YR 6 | \$ | 5.31 | 110 | \$ | 585 | 0.746 |  | 436 |
| FUEL YR 7 | \$ | 5.85 | 110 | \$ | 643 | 0.711 |  | 457 |
| FUEL YR 8 | \$ | 6.43 | 110 | \$ | 707 | 0.677 |  | 479 |
| FUEL YR 9 | \$ | 7.07 | 110 | \$ | 778 | 0.645 |  | 502 |
| FUEL YR 10 | \$ | 7.78 | 110 | \$ | 856 | 0.614 |  | 526 |
| RESIDUAL VALUE $=\$ 4,000$ |  |  |  |  | - | 0.585 |  | $(2,340)$ |
| \$7.30/GAL. YR $10=$ |  | 10\% |  |  |  |  | \$ | 25,961 |

