GPRA Representation of the Hydrogen Program

The Hydrogen Program is targeted towards the introduction of fuel cells for both stationary and vehicular applications and the production of hydrogen at a reasonable price. The GPRA benefits estimates focus on gasoline and hydrogen fuel cells for vehicles. The Hydrogen Program has not yet established technology goals for stationary fuel cells, so benefits could not be computed. As a result, the benefits are underestimated. The production side of the program was represented as success in delivering hydrogen at $2.00 per gallon of gasoline equivalent (inclusive of taxes). As mid-term model, the NEMS-GPRA04 framework does not contain sufficient structure to analyze the production and delivery of hydrogen.

The fuel cell vehicles were modeled along with the FreedomCAR and Technologies Program. The gasoline and hydrogen fuel cell vehicle costs and efficiencies were modified to reflect the program goals (see the FreedomCAR Program description for more detail about the modeling of vehicle choice). The benefits associated with fuel cells were then attributed to the Hydrogen Program based on their relative efficiencies and their share of the displaced conventional gasoline vehicles VMT.

FY04 GPRA Benefits Estimates for Hydrogen* (NEMS-GPRA04)			
	2005	**2010**	**2020**
Energy Savings (quads)	0.00	0.00	0.11
Oil Savings (quads)	0.00	0.00	0.11
Carbon Savings (MMT)	0.0	0.1	2.2
Energy Expenditure Savings (B2000$)	0.0	0.1	2.0

* Does not yet include any benefits from stationary fuel cells.