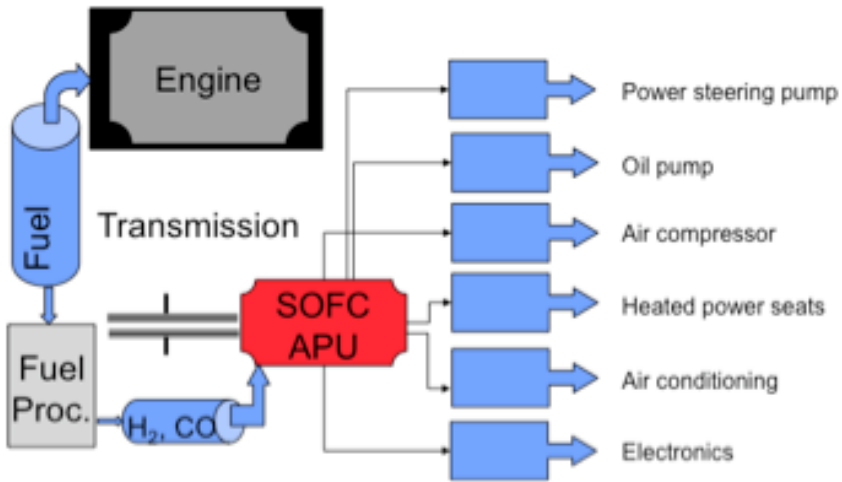


# Hydrogen for fuel cells

## Catalytic reforming of fuels



Auxiliary power unit with liquid fuel processor and solid oxide fuel cell (SOFC)

### Objective:

- Development of catalysts and reactor systems for on-board conversion of liquid fuels (Diesel and JP-8) into hydrogen-rich gas for solid oxide fuel cells

### Approach:

- Fundamental studies of catalytic reaction mechanisms
- Development of coke and sulfur tolerant catalysts
- Reactor design
- Systems integration for improved energy efficiency

### Impact:

- Reduced engine idling
- Reduced fuel consumption
- Reduced emissions
- Reduced engine wear
- Reduced noise pollution

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### Facilities and infrastructure:

- Transportation Energy Center (TEC)  
<http://www.engin.umich.edu/research/tec/>