

**Johnson Controls**  
**Summary of Comments and Responses to Questions**  
**Meeting with DOE/OMB Officials on**  
**Advanced Technology Vehicle Loan program**

October 23, 2008

**Opening statement**

Johnson Controls supports the loan and grant program to mitigate risk as well as create tremendous job opportunities for our North American OEM customers and Suppliers as they begin the transformation to electric drivetrain vehicles without clarity of market requirements, environmental policy making and consumer preferences going forward. Current economic conditions as well as domestic OEM distress have increased the urgency with which this program should be implemented.

1. Because the U.S. taxpayer is ultimately the funding source for this program, it is appropriate and fair that the program is structured to ensure a favorable risks/benefits outlook for the working people who pay federal taxes. Therefore, it is recommended that any organization applying for a loan must meet the following basic qualification requirements:
  - i. Is eligible to pay corporate taxes to the United States Treasury
  - ii. Is a vehicle OEM, or a company which manufactures products in the United States in at least one of the following categories
  - iii. OEMs must provide a sourcing plan as part of the application process.
  - iv. Subsystem and component suppliers must submit a sourcing plan as part of the application process.
    - a) Electrochemical cells
    - b) Thermal management subsystems
    - c) Battery system controllers
    - d) Electric traction motors
    - e) Regenerative braking subsystems
    - f) Electric powertrain controllers
    - g) High power electronics for electrified powertrains
    - h) High efficiency transaxles for electrified powertrains
2. Costs in the following categories are eligible for loans:
  - i. Manufacturing facility renovations and new construction to enable advanced propulsion technology production and assembly in the United States
  - ii. Advanced technology manufacturing equipment produced in the United States
  - iii. Application, design-for-manufacturing and integration engineering costs for work performed in a facility sited in the United States.

3. The actual loan amount will be the product of the Scaling % in the table below and the weighting factor indicated in section 5 times the total cost project cost:

**Suggested Scale for Determining Loan Percent**

<b><u>Level of U.S. Content</u></b>	<b><u>Loan</u></b>
• Final assembly in U.S	30%
• Final assembly and >50% BOM value U.S sourced	45%
• Final assembly and >80% BOM value U.S. sourced	60%
• #3 and U.S. headquartered	80%

4. To ensure fair and effective program implementation and results while minimizing administrative burden, the following compliance verification procedure is suggested:

- i. Application documents will require a complete description of the applicant's corporate structure, product/components to be manufactured and estimated U.S. sourcing content based on a simplified Bill of Materials.
- ii. Successful applicants will keep documents on file for inspection by DOE and/or OMB representatives which:
  - a) Are updated quarterly
  - b) Itemize the use of the loan monies as per the three eligibility categories listed in section 2.
  - c) Account for the retail value of the advanced technology products manufactured as a direct result from the applicant's loan program.
  - d) Indicate the cumulative Accounts Payable value to U.S. headquartered suppliers or service organizations related to the production of those items in section 4, 2, c.
  - e) Applicant will make documents available either electronically or by site visit to the DOE or OMB within 24 hour notice.

5. In recognition of the value of advanced internal combustion engine technologies to help bridge the gap between conventional vehicles and the electrified powertrain paradigm of the future, the advanced IC products will be eligible for loans, but on a weighted scale as shown below:

<u>Powertrain type</u>	<u>Weight Factor</u>
Advanced gasoline* IC	0.15
Advanced diesel* IC	0.15
Micro hybrids	0.05
Mild-Full hybrid	0.45
Plug-In Hybrid	0.9
Battery Electric Vehicle	1.0

\* *at the wheels* efficiency improvement of at least 20% versus conventional version of that specific technology as verified by **MIT Sloan Lab**

6. Loan amount calculation examples:

**Example 1:** Battery electric vehicle product  
Final assembly in U.S.  
60% of BOM value is U.S. sourced  
Total new building cost = \$35,000,000

Loan amount = 1.0 X 45% X \$35,000,000 = \$15,750,000

**Example 2:** Advanced Diesel engine with +30% efficiency  
Final assembly in U.S.  
50% of BOM value in U.S.  
Headquartered in U.S.  
Engineering costs \$12,000,000

Loan amount = 0.15 X 45% X \$12,000,000 = \$810,000