We, the French Automotive Electric (FAE), are interested in your project. Actually, we are a fuel cell and electric motor supplier for bus and truck producers.

As a result of our research and development activities, the development of fuel-cells for automotive applications has reached a stage where we can offer the first such product to customers.

Our fuel-cell is an advanced concept using high technology components, which uses low-cost materials and is designed for manufacturing in automotive volumes.

Our aim is to create a common company with SBC, which will be able to produce fuel cell buses.

**Presentation of our Firm**

French Alternative Automotive Engineering (FAAE) is the first European supplier concerning electrical engines and alternative power solutions. FAAE has a turnover of RMB 400 M and RMB 500 M capital account.

Our company is nearly exclusively based on innovation. Its leading technologies - as well technically as economically speaking – enable leading car, truck and bus manufacturers to anticipate the present revolution in the transportation economy.
Alternative power is doubtlessly THE solution for the future, not only in Asia, but also in Europe, where governments have already emphasized on the importance of new energy-sources. This is not only due to the worldwide growing awareness of ecology-issues but also to the fact that petrol appears to become a limited resource.

FAAE works closely with several major manufacturers concerning research. In addition, we have already concluded a lot of partnerships, including the equipment of several public mass transit companies like the RATP in Paris, the CTS in Strasbourg or the MVV in Munich.

**SETTING UP OF THE JOINT VENTURE**

In order to facilitate the setting up of the Joint Venture and to negotiate with the Chinese government, we shall appoint a correspondent in Shanghai.

Our firm proposes you to create a “foreign-funded joint stock company limited”, authorised by the law of the 01/10/1995. This type of firm with foreign capital is a moral person set up jointly by several companies. At least one of them has to be Chinese.

The social capital is constituted with Chinese and foreign shares which have the same face value.

The foreign shareholders must hold a minimum of 25% of the social capital.

**FUNCTIONING**

The sharing in the losses of the Foreign-Funded Joint Stock Company Limited is in proportion with the shareholders’ contributions. Moreover, the incorporators aren’t allowed to sell their contributions before 3 years from the date of the setting of the Joint Venture.

A contractual joint venture shall establish a board of directors or a joint managerial institution which shall, according to the contract or the articles of association for the contractual joint venture, decide on the major issues concerning the venture.
If the Chinese or foreign party assumes the chairmanship of the board of directors or the directorship of the joint managerial institution, the other party shall assume the vice chairmanship of the board or the deputy directorship of the joint managerial institution. The board of directors or the joint managerial institution may decide on the appointment or employment of general manager, who shall take charge of the daily operation and management of the contractual joint venture. The general manager shall be accountable to the board of directors or the joint managerial institution. If a contractual joint venture, after its establishment, chooses to entrust a third party with its operation and management, it must obtain the unanimous consent of the board of directors or the joint managerial institution, report to the examination and approval authority for approval, and register the change with the administrative authorities for industry and commerce.

Any dispute between the Chinese and foreign parties arising from the execution of the contract or the article of association for a contractual joint venture shall be settled through consultation or mediation. In case of a dispute which the Chinese or the foreign party is unwilling to settle through consultation or mediation, or of a dispute which they have failed to settle through consultation or mediation, the Chinese and foreign parties may submit it to a Chinese arbitration agency or any other arbitration agency for arbitration in accordance with the arbitration clause in the contractual joint venture contract or a written agreement on arbitration concluded afterwards. The Chinese or foreign party may bring a suit in a Chinese court, if no arbitration clause is provided in the contractual joint venture contract and if no written agreement is concluded afterwards.

TECHNOLOGY TRANSFERT

As concern the technology transfer, the regimentation in China imposes to the firms, the confidentiality of the technological information during the time of their collaboration.

Moreover, in agreement with you, we’d like to sign a “gentlemen's agreement”, which will be negotiate after 3 years of the JV activity, about developing our activity towards to fuel cells truck production.

PROJECT OBJECTIVES

CHINA’S INTERESTS IN THE JOINT-VENTURE:

- This Joint-Venture is a mean to fight air pollution at the world-wide level.
- To anticipate the new economic and environmental legislation in order to be the leader on this market.
- Make the China the first country in the world for fighting air pollution in its transport industry.

YOUR INTERESTS IN THE JOINT-VENTURE:

- Acquisition of technical knowledge, know-how and technologies of the fuel cells production.
• A decrease in the investment costs (R&D...).

• Improvement of their brand image.

OUR INTERESTS IN THE JOINT-VENTURE:

• A possibility to gain a place on the Chinese market, and there to develop a non-polluting bus.

• A decrease in the commercial and settlement costs.

1. Technical aspects

FUEL-CELL SYSTEM

Description

As a result of our research and development activities, the development of fuel-cells for automotive applications has reached a stage where we can offer the first such product to customers.

Our fuel-cell is an advanced concept using high technology components, which uses low-cost materials and is designed for manufacturing in automotive volumes.

It’s based on modular units which can be added to reach the required power capacity. So you can adapt it quickly to each kind of transported system.

Technical specifications

Our system has a net electrical power of 50 kW per module. It does not produce any emissions. It produces direct current electrical power for connection to our DC motors.
Operating temperature: 40°C to 50°C
Ambient storage temperature: 2°C to 50°C
Technology concept

Chemical aspect
Fuel-cell Design

Our fuel-cell is a cube design concept which takes up minimum space.
ENGINE

Description

Our motor is a DC Motor using brushless technology, which obtains the most efficient mechanical yield. It was developed to be compatible and to be the most appropriate for our fuel-cell technology and electrical characteristics and it provides the best performance because of our fuel-cell units.

It uses a liquid cooling system to reduce its temperature when functioning. It allows the bus a top speed of about 80 mph in standard mechanical transmission.

Technical specifications

<table>
<thead>
<tr>
<th>DC motor power (kW)</th>
<th>Efficiency to 53%</th>
<th>Efficiency to 48%</th>
<th>Noise level (dB)</th>
</tr>
</thead>
<tbody>
<tr>
<td>300</td>
<td>53%</td>
<td>48%</td>
<td>&gt;100</td>
</tr>
</tbody>
</table>
Easily adaptable to a standard transmission system with a motor coupling.
2. Development and production plans

FUEL CELLS AND ENGINE ACTIVITY:

The development and production plans are based on a joint venture agreement in December 2000 and a production rate objective of 1000 fuel cell buses by the end of 2001. The period from January 2001 to May 2001 will be devoted to the design and the building of the fuel cell production line and the engine system assembly line, according to the SBC infrastructure and our existing production machines. The month of June will consist of testing the different steps of the production lines. We expect to start the production in large scale during July 2001 with a rate of 84 buses per month (this rate corresponds to a rate of 1000 buses per year).

Also, during the setting up of the JV company, in order to answer to the request of a production of 1000 buses per year, we plan to start the production of FC buses with imported fuel cells and engines. This production will start in March. The first months of 2001 will be devoted to the adaptation of the existing buses assembling lines to the FC-engines, the building of a prototype and its test bench. The rate of importation of the fuel cells and the engines will be adequate to the production rate of 84 buses per month, except for the first importation. In fact, this one will be of 120 fuel cells and engines, in the goal to constitute a
security stock in case of an importation problem.

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Nov Dec</td>
<td>Jan Feb</td>
</tr>
<tr>
<td>RFP answer</td>
<td>1-nov</td>
<td></td>
</tr>
<tr>
<td>JV agreement</td>
<td></td>
<td>12-déc</td>
</tr>
<tr>
<td>Design and building of the production lines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fuel cell and engine test bench</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptation of the buses assembling lines</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1st bus prototype</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prototype test bench</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Production launch</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rate of 84 buses per month</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**METHANOL ACTIVITY:**

Concerning the production and the distribution of the methanol, we can't establish a well defined development and production plan, due to the little information about your knowledge and the JV goals in this activity. In the expectation of discussions about the production and the distribution of methanol, our research allows us to say that the increase throughput of an existing station by adding 10 000 gallon tank will cost about $60 000, and that the renovation of an existing 10 000 gal. Petroleum tank will cost about $30 000.

Also, different studies estimate the cost of the methanol production, in the Asia/Pacific region between $190 and $230 per tone (or 57.1 and 69.1 cents per gallon), depending on location.

We hope that the negotiation conference will clarify the JV strategy so we can define an exact development and production plan.

### 3. Environmental consideration

FAE is really involved in environment protection, that’s why our firm has decreased emissions level with the fuel cell buses. Moreover, we are also working on fuel cells recycling. Indeed, the life time of a fuel cell is longer as a car’s engine, so, our firm proposes you recycle the fuel cells at the end of their cycle. Currently, our firm can recycle 95% of the fuel cells because this technology is known and has been developed over 10 years.

Fuel cells buses are very attractive because they offer the advantages of battery-powered vehicles but can also be refuelled quickly and could go longer distances between refuelling.

As in China, some French parliament acts concerning environment are very strict; in particular concerning the level of small particles emission which has to be as small as possible.

Whereas, fuel cells using hydrogen would produce near-zero emissions and yet, fuel cells buses could be more efficient than “grid”-powered battery vehicles.

Our project is closely related to China’s goals for environment protection: 1- the discharge of industrial pollutants should meet both the State’s and local standards. 2- air and water quality in all urban districts in major cities should meet related State standards.
So, our firm will contribute to the decrease in the level of small particles emission, this technology joined to the China’s government measures should allow Shanghai to be taken out of the ten most polluted cities.

4. Commercial strategy:

The commercialization of the fuel cell buses will take place in 3 major steps.

1- Fuel Cells and Shanghai

The production capacity of our chinese fuel cells unit will be 4000 unit/year. This capacity will be used to equip buses exclusively for SBC.

2- Fuel Cells and China

Once SBC is fully equiped, FAAE will supply other major chinese transportation companies (for example for big urban area like Beijing, Hong-kong, Guangzhou, etc….)

3- Fuel Cells and the Asia-Pacific Market

The commercialization will be extended to others countries of the asian-pacific area (Taiwan, Japan, Singapore, Thailand, Malaysia, etc…)
5. Proposal for the training plan of the Chinese work force

Objectives to reach in N+5:

Chinese employees must be able to:
- manufacture fuel cell buses;
- manage the design, the expertise, the mechanical process of the fuel-cell engines;
- do the assembly, operation and maintenance of the fuel cell buses
- integrate the entire supply network.

The training for the Chinese work force will be the following:

First of all, we have determined the tasks to be taught to the Chinese employees, according to their status in SBC: managers, engineers or workers.

We decided managers will be taught the same tasks as the engineers, as we consider that managers' job is to drive engineer-teams, so both must have the same knowledge.

<table>
<thead>
<tr>
<th>Tasks</th>
<th>Managerial staff</th>
<th>Engineering staff</th>
<th>Workers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1/ Design of fuel cells</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>2/ Expertise of fuel cells</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>3/ Mechanical process of the fuel cells</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>4/ Maintenance of fuel cell &amp; electrical engines</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>5/ Understanding the entire supply network</td>
<td>X</td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

Then, we have made a timetable (see next page), in order to plan the tutorials of the different tasks, for the duration of the training, i.e. 3 years.

The training of the Chinese work force will last 3 years, in order to be long enough to teach to the employees of the Joint-Venture the basic knowledge in their job. It shouldn't last more than 3 years, considering the high cost of such a training program.

The training program will consist of practical tutorials, taught by qualified employees of the FAE. The tutorials for the Chinese workers will be held by French workers, tutorials for the Chinese engineers will be held by French engineers, and tutorials for Chinese managers will be held by French managers.

This experienced staff will be in charge of the success of its "pupils": a notebook will have to be completed, to underline which tasks are poorly or perfectly managed by the Chinese employees.

A daily period of 15 minutes will be dedicated to filling in this notebook.

The employees of the SBC will be helped and advised by their teachers in order to reach the aims of the training program.

Once a month, a one-hour meeting will be held, concerning the SBC employees (by groups of 10 people) and their relevant FAE teachers.
The aim of the meeting is to ensure the Chinese employees have understood their new tasks, and that they manage to do them. The language used during the meetings and the tutorials will be English for both managers and engineers. Concerning the tutorials for workers, the teachers will be able to speak Chinese.