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Applied Building Science Center

Industrial Energy Laboratory

FILED

MEMORANDUM

То:	North Carolina Utilities Commi	JAN LY ZUM	
From:	Robert K. Koger, President, North Carolina Advanced Energy Corponationice		
Re:	Charter Amendment regarding Powers of the Board of Directors of North Carolina Advanced Energy Corporation		
Date:	January 19, 2000	E-100 Sub 37A	

OFFICIAL COPY

The Board of Directors (the "Board") of the North Carolina Advanced Energy Corporation ("Advanced Energy") hereby requests the North Carolina Utilities Commission (the "Commission"), representing all of the members of Advanced Energy, to approve an amendment to the Articles of Incorporation of Advanced Energy.

In order to better advance the Corporate Purposes of Advanced Energy and to allow Advanced Energy to promote and support research and advancements relating to the production and use of energy and discovery of alternative sources of energy, the Board recommends and respectfully requests that the Commission approve the amendment to the Articles of Incorporation of Advanced Energy attached hereto.

Attached hereto are the certification and resolutions passed by the Board, the Articles of Amendment of North Carolina Advanced Energy Corporation, and a proposed Order of the Commission.

 CORP-6348-1-153832-01
 Advanced Energy Corporation
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NORTH CAROLINA ADVANCED ENERGY CORPORATION **CERTIFICATE OF PRESIDENT**

The undersigned President of North Carolina Advanced Energy Corporation (the "Corporation") hereby certifies as follows:

Attached hereto as Exhibit A is a true, correct and complete copy of a resolution adopted by the Board of Directors of the Corporation.

IN WITNESS WHEREOF, the undersigned executed this certificate this 19th day of January 2000.

Robert K. Koger, President

EXHIBIT A

NORTH CAROLINA ADVANCED ENERGY CORPORATION

RESOLUTION TO INSERT IN MINUTES OF BOARD OF DIRECTORS MEETING APPROVING AMENDMENT TO ARTICLES OF INCORPORATION:

WHEREAS, the Board of Directors desires to amend the Articles of Incorporation of North Carolina Advanced Energy Corporation to change the power of the Board of Directors relating to investment of funds of the Corporation.

NOW, THEREFORE, BE IT RESOLVED: That the Board of Directors approves and hereby recommends to the members that the Articles of Amendment to the Articles of Incorporation, attached hereto as <u>Exhibit A</u>, changing the power of the Board of Directors relating to investment of funds of the Corporation, be approved.

FURTHER RESOLVED: That the Board of Directors shall submit the Articles of Amendment to the members for approval as required by law.

FURTHER RESOLVED: That the officers of the Corporation be authorized and directed to file the Articles of Amendment with the North Carolina Secretary of State after member approval has been duly obtained.

FURTHER RESOLVED: That the officers of the Corporation are hereby authorized and directed to take such further action as may be necessary or appropriate to effectuate the intent of the foregoing resolutions.

ARTICLES OF AMENDMENT OF NORTH CAROLINA ADVANCED ENERGY CORPORATION

Pursuant to Section 55A-10-05 of the General Statutes of North Carolina, the undersigned corporation hereby submits these Articles of Amendment for the purpose of amending its Restated Articles of Incorporation.

1. The name of the corporation is North Carolina Advanced Energy Corporation.

2. The Restated Articles of Incorporation of the corporation are hereby amended as follows.

The first sentence of the last paragraph of Article 5, Section 9 of the Restated Articles of Incorporation is deleted and restated in its entirety as follows.

"The Board of Directors may invest funds of the Corporation in investment media including, but not limited to: interest bearing federally insured bank accounts or certificates of deposit, direct obligations of the United States government or obligations guaranteed by either the government of the United States or any of its agencies or by the State of North Carolina or any of its agencies or subdivisions and other investments as directed by the Board of Directors."

3. The date of adoption of the foregoing amendment to the Restated Articles of Incorporation was December 29, 1999.

4. The amendment to the Restated Articles of Incorporation was approved by the members of the corporation in the manner prescribed by law.

5. These Articles of Amendment will be effective upon filing.

Dated this the 19th day of January 2000.

North Carolina Advanced Energy Corporation

By: Wohnt 16 Korgen

Name: Robert K. Koger

Title: President and Executive Director

STATE OF NORTH CAROLINA UTILITIES COMMISSION RALEIGH

DOCKET NO. E-130, SUB 37A

BEFORE THE NORTH CAROLINA UTILITIES COMMISSION

In the Matter of)	ORDER GRANTING REQUEST
Establishment of a North Carolina)	FOR AMENDMENT OF
Advanced Energy Corporation)	ARTICLES OF INCORPORATION

BY THE COMMISSION: On _____, ___, Robert K. Koger, President of the North Carolina Advanced Energy Corporation ("NCAEC"), filed a memorandum requesting approval to amend the Articles of Incorporation of NCAEC. The memorandum stated that "In order to better advance the Corporate Purposes of Advanced Energy and to allow Advanced Energy to promote and support research and advancements relating to the production and use of energy and discovery of alternative sources of energy, the Board recommends and respectfully requests that the Commission approve the amendment to the Articles of Incorporation" of NCAEC. The Board of Directors of NCAEC recommended that the first sentence of the last paragraph of Article 5, Section 9 of the Restated Articles of Incorporation of NCAEC be deleted and restated in its entirety as follows.

"The Board of Directors may invest funds of the Corporation in investment media including, but not limited to: interest bearing federally insured bank accounts or certificates of deposit, direct obligations of the United States government or obligations guaranteed by either the government of the United States or any of its agencies or by the State of North Carolina or any of its agencies or subdivisions and other investments as directed by the Board of Directors."

IT IS, THEREFORE, ORDERED that the Commission approves the above amendment to the Articles of Incorporation of NCAEC.

ISSUED BY ORDER OF THE COMMISSION.

This the _____ day of ______.

NORTH CAROLINA UTILITIES COMMISSION

By:



Applied Building Science Center

Industrial Energy Laboratory

MEMORANDUM

TO: North Carolina Utilities Commissioners

- FROM: Robert K. Koger, President /////K NC Advanced Energy Corporation
- DATE: January 19, 2000

SUBJECT: Charter Revision for Advanced Energy

The Board of Advanced Energy (composed of seven Public Members appointed by the Governor and five members appointed by their respective participating utilities) requests the Commission to modify the section of the Charter which limits the type of investment that Advanced Energy can make with its funds.

Currently, the Charter specifies that Advanced Energy can only invest its non-program funds in certain bonds and other highly liquid securities. The proposed amendment would allow Advanced Energy's Board to make equity investments in promising technology developed by our engineers and scientists. The Charter's initial provision on investment of funds may have been appropriate at the time of incorporation, but there have been developments that now warrant its revision.

One of these was congressional action in the 1980's that established the Small Business Innovative Research (SBIR) program. Under that action, each Federal Agency doing a certain minimum amount of research must set aside a percentage of its funds for grants and contracts to small (usually startup and technology related) businesses. The total funding available has grown to approximately \$1 billion annually.

This research money is not available to non-profits, universities, or large businesses. As a result of this restriction, universities and non-profits such as MCNC and RTI are spinning off small forprofit companies to take advantage of the program. Of course, by requiring the establishment of for-profit entities, the Government is insuring that it will benefit through the collection of taxes on income generated by the investment of public funds. However, the main purpose of the program is to ensure that the United States maintains its position as the technology leader of the World. Several existing multi-billion dollar companies were started with small SBIR grants.

Our action in requesting an amendment to our Charter as described in the attached papers was prompted by the recent receipt of a patent by one of our engineers. His patent, which he filed prior to coming to work for us, deals with an entirely new and low-cost way to make a fuel cell. As you know, the development of a low-cost fuel cell could greatly impact distributed electrical generation and the production of electrically powered cars and trucks. Given their virtually nonpolluting attribute, fuel cells as a research subject rank high on the agenda of most energy researchers. The technical feasibility of the recently patented fuel cell has been proven on a small scale. However, there are many questions regarding scale-up and whether they can be mass-produced as described in the patent.

Advanced Energy intends to make a 5% to 10% equity investment in the Start-up Company for a nominal dollar amount. We will then assist the company in applying for SBIR and other grant funds. We will initially house the startup and will handle all financial transactions on a separate, arms length basis. It is not anticipated that any substantial work will began until after the receipt of Federal funding.

Our corporate involvement, through an equity ownership in this and possibly other technology startups arising from work of our engineers and scientists, should improve funding chances for these entities given our national reputation for technical expertise. In turn, this should enhance the flow of Federal research funds into and the creation of jobs in North Carolina.

As stated above, other non-profit organizations similar to Advanced Energy have already taken these steps. For example, MCNC in RTP has helped spin off at least four technology startups through its equity investments.

Lastly, Advanced Energy now raises approximately one-fourth of its revenue from sales and services outside North Carolina. An Advanced Energy investment rather than a grant (which we may have made in the past) could help us to become more financially independent in the future. Given the movement toward deregulation of the electric industry, this is certainly a goal for us.

If you need additional information, please advise me.

Attachments