MTSU Clean Energy Initiative Project Funding Request

There are five (5) sections of the request to complete before submitting. See http://www.mtsu.edu/~sga/cleanenergy.shtml for funding guidelines. Save completed form and email to cee@mtsu.edu or mail to MTSU Box 57.

1. General Information	
Name of Person Submitting Request Charles White of Students for Environmental Action	
Department/Office Student	Phone # (Office) N/A
MTSU Box # N/A	Phone # (Cell) 731-307-8986
E-mail cww2n@mtmail.mtsu.edu	Submittal Date 25 February 2011

2. Project Categories (Select One)			
Select the category that best describes the project.			
	Energy Conservation/Efficiency	X	Sustainable Design
	Alternative Fuels		Other
	Renewable Energy		

3. Project Information
a. Please provide a brief descriptive title for the project. **b.** The project cost estimate is the expected cost of the project to be considered by the committee for approval, which may differ from the total project cost in the case of matching funding opportunities. **Any funding request is a 'not-to-exceed' amount. Any proposed expenditure above the requested amount will require a resubmission.** c. List the source of project cost estimates. d. Provide a brief explanation in response to question regarding previous funding.
3a. Project Title Kangen Water Station for Human Health and Environmental Sustainability
3b. Project Cost Estimate $6,500.00

3c. Source of Estimate

H2Origin Solutions – Zach Cannon, Hydration Specialist sales@h2origin.net

Gerald Caudill, Director, Engineering and Building Services, Construction / Renovation, Environmental Health and Safety, provided estimate for installation labor.

4. Project Description

(Completed in as much detail as possible.)

a. The scope of the work to be accomplished is a detailed description of project activities.
b. The benefit statement describes the advantages of the project as relates to the selected project category.
c. The location of the project includes the name of the building, department, and/or specific location of where the project will be conducted on campus.
d. List any departments you anticipate to be involved. Were any departments consulted in preparation of this request? Who? A listing may be attached to this form when submitted.
e. Provide specific information on anticipated student involvement or benefit.
f. Provide information for anticipated future operating and/or maintenance requirements occurring as a result of the proposed project.
g. Provide any additional comments or information that may be pertinent to approval of the project funding request.

4a. Scope: Work to be accomplished

Product Specs -
http://www.enagic.com/technology_products.php#p=sd501u

H2Origin Solutions - Ionization unit capable of 14,000 gallons minimum annual production installed in a custom cabinet designed for optimal use in a fitness center environment. Installed on site. $6,150.00

MTSU Facilities Services – Structural Installation that includes tapping into an existing water fountain (to supply cold water input, waste water output, and 120V 60Hz power supply), hardwiring the water unit into the building, and securing the cabinet to floor or wall so that it is a safe interface for public access. Estimated one hour of work @ $350.

4b. Scope: Benefit Statement

Investment in clean water solutions is a great way to improve overall health of students while reducing recycling needs. This would equate to a reduction in recycling costs or an increase in our recycling efforts. By reducing bottled water waste potential up to 106,036 bottles per year (based on 14,000 gallon/year consumption) we can reduce CO2 emissions by 187,972 lbs. (the same as planting 26 acres of trees). This project would also create many educational opportunities for sustainable clean water projects.

4. Project Description (continued)

4c. Location of Project (Building, etc.)

As students, we would leave this decision to Campus Planning and Facilities Services, however, we would prefer to see this installed in the rec center. This would seem to facilitate students in the most efficient way.

4d. Participants and Roles

H2Origin Solutions - Project Design, In-Cabinet Plumbing assembly, Delivery and placement on campus.

Jones Cabinet Company – Cabinet Build

MTSU Facilities Services – Cold water input, waste water output, electrical wiring and connection the unit to the building (water lines, electrical, cabinet security to wall or floor).

4e. Student participation and/or student benefit

Students would be able to directly participate in reducing environmental waste by reusing beverage containers while consuming healthy water.

Benefits of Kangen Water include:

- **Hydrates 6x Better**
- **Superior Electrolyte Replenishment**
- **Faster Muscle Recovery**
- **Stronger Performance**
- **Longer Endurance**
- **Increased Cognitive Function**
- **Anti-inflammatory**

4f. Future Operating and/or Maintenance Requirements

Filter replacement is required for this equipment. Estimated annual costs would be $1,034. This is based on initial consumption of approximately 14,000 gallons per year.

4g. Additional Comments or Information Pertinent to the Proposed Project

5. Project Performance Information

Provide information if applicable.

a. Provide information on estimated annual energy savings stated in units such as kW, kWh, Btu, gallons, etc.
b. Provide information on estimated annual energy cost savings in monetary terms.
c. Provide information on any annual operating or other cost savings in monetary terms. Be specific.
d. Provide information about any matching or supplementary funding opportunities that are available. Identify all sources and explain.

5a. Estimated Annual Energy Savings (Estimated in kW, kWh, Btu, etc.)

Estimated annual energy consumption is approximately 900 kWh, which is less than half the energy consumed annually by one refrigerated vending machine.

106,035 plastic bottles saved annually at minimum water production potential of 14,000 gallons per year.

106,000 plastic bottles saved annually reduces 187,972 pounds of CO2 emissions over 20 years, the minimum life expectancy of the machine. This savings in CO2 emissions is equivalent to planting 26 acres of trees. That's more than 1 acre of planting trees per year.

One Kangen water unit saves 45 barrels of oil per year (from plastic bottle production, water processing, and distribution) x 20 years = 2,485 gallons of oil per year & 49,700 gallons of oil in the 20 year life expectancy of the machine.

Producing a one-liter bottle of drinking water requires 1/4 liter of oil and 3 liters of water. Producing one liter of Kangen water requires 1.2 liters of water and uses approximately 0.001 kWh.

5b. Annual Energy COST Savings ($)

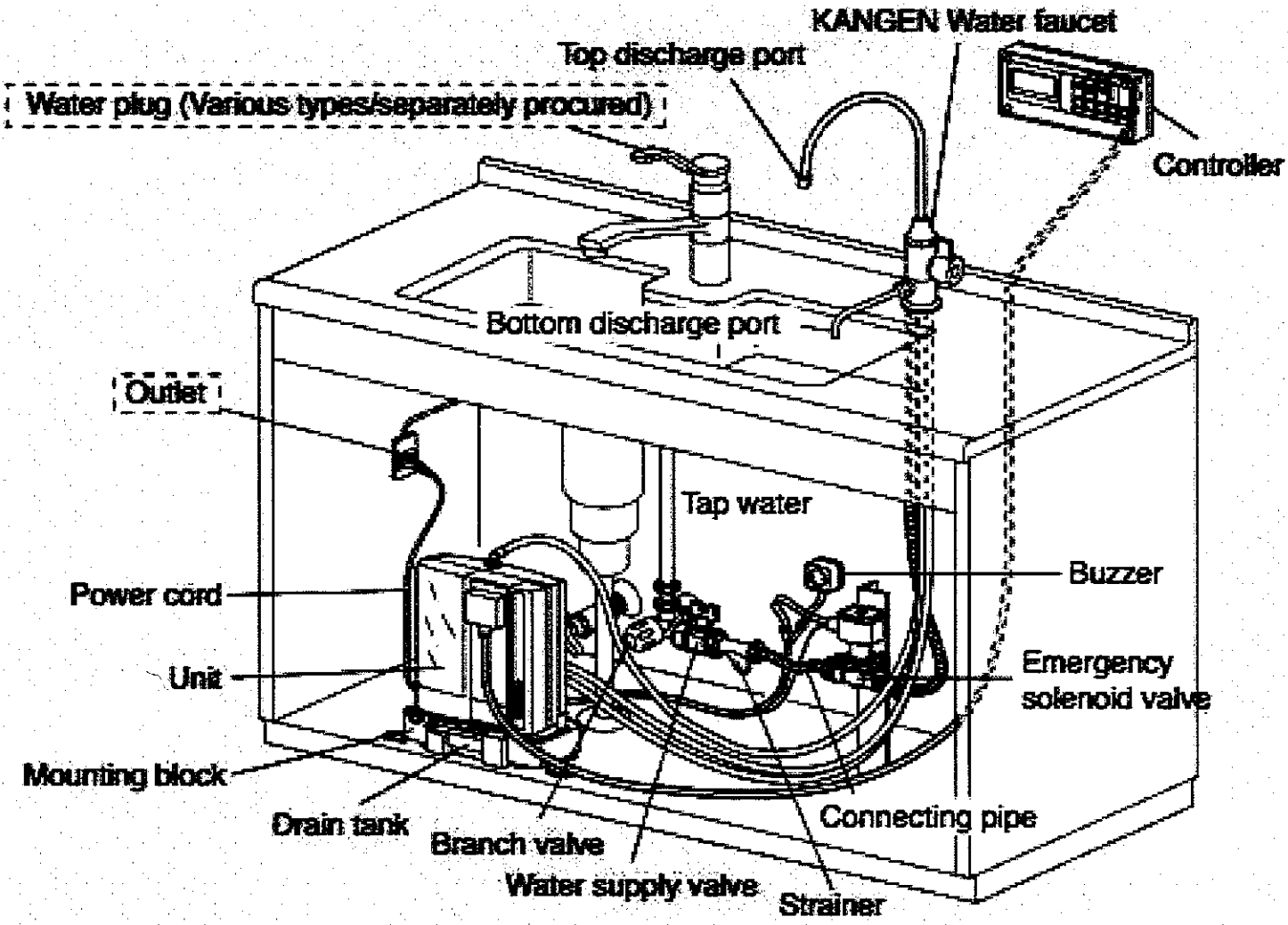
This machine will save the university approximately $40 per year compared to running one refrigerated vending machine.

5c. Annual Operating or Other Cost Savings. Specify. ($)

Students will save Approximately $132,543.75 annually (assuming 106,035 plastic bottles @ $1.25 per)

If this competes with vending sales revenues, customized logoed stainless steel bottles could be proposed in the future. Sales of these bottles would promote healthy lifestyles and pay for the machine.

5d.Matching or Supplementary Funding (Identify and Explain)


KANGEN Water faucet
Top discharge port
Water plug (Various types/separately procured)
Controller
Bottom discharge port
Outlet
Tap water
Buzzer
Power cord
Unit
Emergency solenoid valve
Mounting block
Drain tank
Branch valve
Water supply valve
Strainer
Connecting pipe

ONLINE CERTIFICATIONS DIRECTORY

ZDUZ.E236791
Water Softeners, Demineralizers and Water Treatment Units

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Water Softeners, Demineralizers and Water Treatment Units

See General Information for Water Softeners, Demineralizers and Water Treatment Units

ENAGIC INC E236791
1-40-1 HOSHIDA KITA
KATANO-SHI, OSAKA 576-0017 JAPAN

Electrolysis water systems, Model Leveluk DX TYH-91N.

Models "LeveLuk SD501 TYH-401", "LeveLuk DXII TYH-302", "LeveLuk JrII TYH-201".

Last Updated on 2009-11-25

Questions? Print this page Notice of Disclaimer Page Top

IEEU環境大賞
The IEEU Environment Award

The International Earth Environment University

IEEU

THE INTERNATIONAL EARTH ENVIRONMENT UNIVERSITY

The International Earth Environment University (IEEU), and
The International Earth Environment Roundtable (IEER)
founded by Prof. Dr. Linus Carl Pauling, Nobel Prize Winner
for Chemistry and for Peace
New York, U.S.A.

This is to certify that

Enagic co., ltd.

has been awarded with Environmental Grand Prize
for the Outstanding Achievement
in the Environmental Sciences
and for "FOUR STEPS TO ABSOLUTE PEACE" Project

Signed & Sealed in New York
U.S.A.

signed:
Prof. Dr. Hisatoki Komaki
Co-Founder and Honorary President
of IEEU and IEER

signed:
Prof. Dr. Kazuyosi Ikeda
President of IEEU and IEER
(Prof. emer., Osaka University)

signed:
Prof. Dr. Teruo Hanawa
of IEEU and IEER
(Prof. emer., Osaka University)

signed:
Prof. Dr. Teijiro Yamazaki
of IEEU and IEER
(Prof. emer., Kyoto University)

signed:
Prof. Dr. Masao Ouchi
of IEEU and IEER
(Prof. emer., Kyoto University of Education)

signed:
Prof. Dr. Tadao Takeuchi
of IEEU and IEER
(Prof. emer., Kumamoto University)

signed:
Prof. Dr. Yoshio Tani
of IEEU and IEER
(ex-President, Santa Maria University)

April 18, 2004

No. 11

ENVIRONMENT UNIVERSITY ROUNDTABLE
IEER

株式会社エナジック
Enagic Co., Ltd.

IEEU環境大賞の授与理由

株式会社エナジックに対し、国際地球環境大学（本部米国ニューヨーク州）日本校（名古屋市：総長・池田和義博士・大阪大学名誉教授・理学博士）は、IEEU環境大賞を授与いたします。
この環境大賞は自然環境やエコビジネスに功労のあった企業や団体に与えられるもので、今回の授賞にあたっては下記の項目のとおりです。

1. 電解水生成器による酸性水等の使用を通じ、洗剤の軽減を可能にするなど河川の汚染防止に寄与。
2. 還元水を飲用することによって、間接的に環境汚染に繋がるペットボトルの使用を減らすことに寄与。
3. 電解水生成器を設置することにおいて、常時還元水や酸性水を使用することができ、衛生面（滅菌・除菌・抗菌）や健康面（生活習慣病）等の生活環境の改善に寄与。
4. 還元水の飲用により自然に予防医学となり、国民医療費の大幅削減に寄与。

2004年4月18日

米国法人　国際地球環境大学
総事務局：名古屋市[illegible]0-28
事務総長　岩[illegible]子
TEL.052-242-2131 FAX.052-[illegible]139

Enagic Receives the IEEU Environment Award

Enagic Co., Ltd. is to receive the Environment Award from the International Earth Environment University (New York, U.S.A.), Japan Campus in Nagoya (President : Kazuyoshi Ikeda D.Sc., Professor Emeritus of Osaka University). The IEEU Environment Award is granted to corporations and organizations that have made outstanding contributions in the areas of natural conservation and eco-businesses.
Enagic Co., Ltd. is being awarded for the follwing reasons :

1. Using acidic water produced by Enagic's electrolyzed water generators for cleaning reduces the use of detergents and prevents the contamination of rivers.
2. Drinking electrolyzed water indirectly reduces the use of pet bottles that is a source of environmental contamination.
3. Installation of Enagic's electrolyzed water generators enables constant use of acidic water and electrolyzed water for disinfecting and drinking thereby promoting hygienic and healthy lifestyles.
4. Drinking electrolyzed water enhances good health and prevents lifestyle-related and other diseases, which in turn significantly cuts medical costs.

April 18, 2004

International Earth Environment University(IEEU)
U.S.A and Japan
Secretary General Ph.D Taeko Iwahori
(Taeko Iwahori)

MINISTRY OF HEALTH, LABOUR AND WELFARE
GOVERNMENT OF JAPAN
2-2, KASUMIGASEKI 1-CHOME, CHIYODA-KU,
TOKYO 100-8916

CERTIFICATE

It is hereby certified that ENAGIC INC.,1-40-1 Hoshidakita,Katano-City, Osaka-Pref.,576-0017 Japan is a medical device marketing authorisation holder licensed in accordance with the provision of Paragraph 1, Article 12 of the Pharmaceutical Affairs Law of Japan.

Name of the Office for General Marketing Manager:ENAGIC INC.

Address: 1-40-1 Hosidakita,Katano-City,Osaka-Pref.,576-0017 Japan

License Number: 27B2X00070

No. 764

Tokyo, date FEB. 1, 2006

Toshiro Nakagaki
Director, Safety Division
Pharmaceutical and Food Safety Bureau
Ministry of Health, Labour and Welfare