



WATTS of Sweat: Re-CYCLE Your Energy

**By: Scott Wood, Cassidy Oborowsky
& Brianna Zoerb**



Purpose



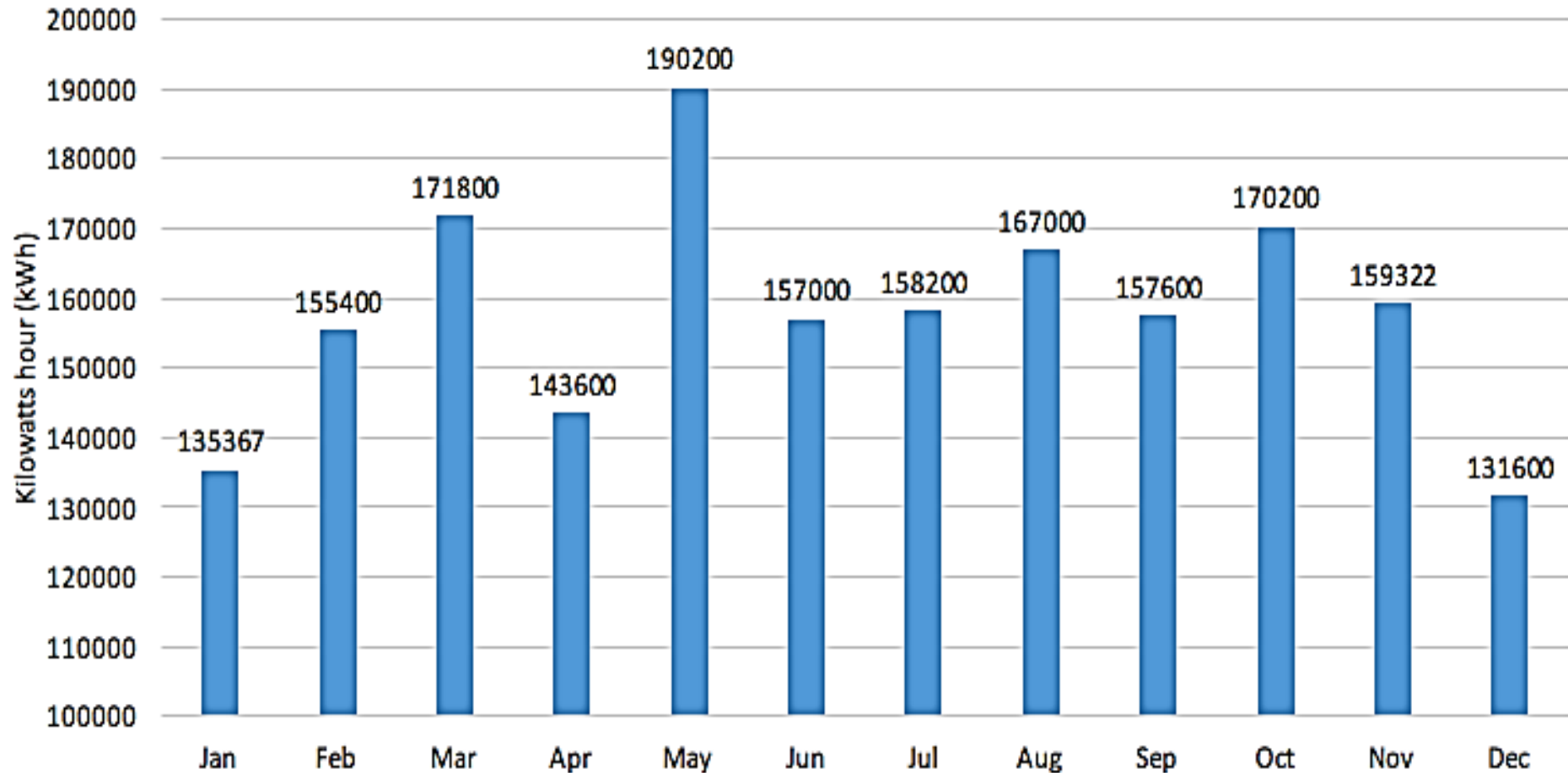
<http://recservices.usask.ca/images/pages/FitCentre-01.jpg>



Purpose

- *Offset Electricity Costs at the PAC*

PAC Monthly Electrical Usage (2012-2015)





Purpose

- *Offset Electricity Costs at the PAC*
- *Education and Awareness*
 - *Community Engagement*
- *Encourage Sustainable Thinking*

AASHE – STARS

University of Saskatchewan

- *Influencing higher education facilities to be drivers of sustainable innovation (AASHE, 2015)*
- *Five categories the U of S is rated in are:*
 - Academics: 23.2/58
 - Engagement: 16.94/41
 - Operations: 20.87/69
 - Planning and Administration: 18.75/32
 - Innovation: 4/4



Types of Technology



<http://usafitnessdirect.com/wp-content/uploads/2013/05/sportsart-logo.png>



https://pbs.twimg.com/profile_images/307315107/ReRev_web.jpg



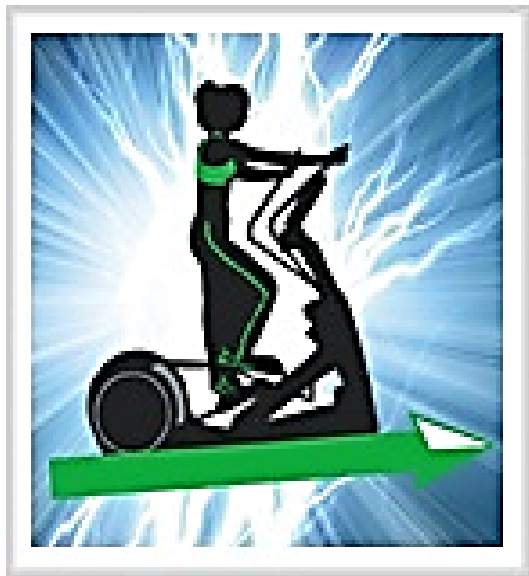
http://www.technogym.com/img/net/artis/logo_artis-payoff.jpg
<http://www.wellnessaccelerator.com/wp-content/uploads/2015/08/Logo-Technogym.png>



<http://www.usask.ca/nutritionfoodsecurityhealth/images/University-of-Saskatchewan-logo1.jpg>

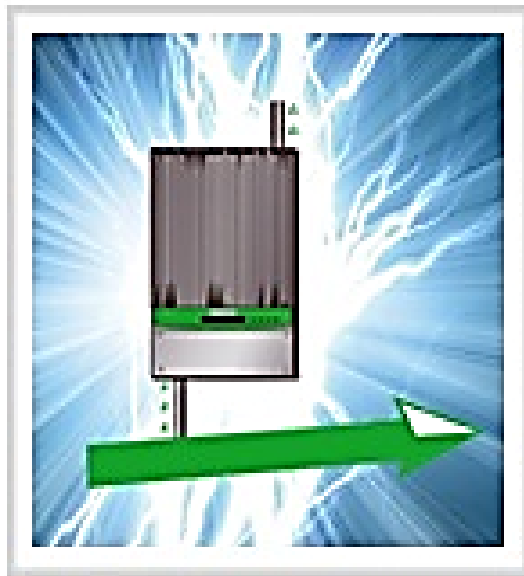


ReRev system



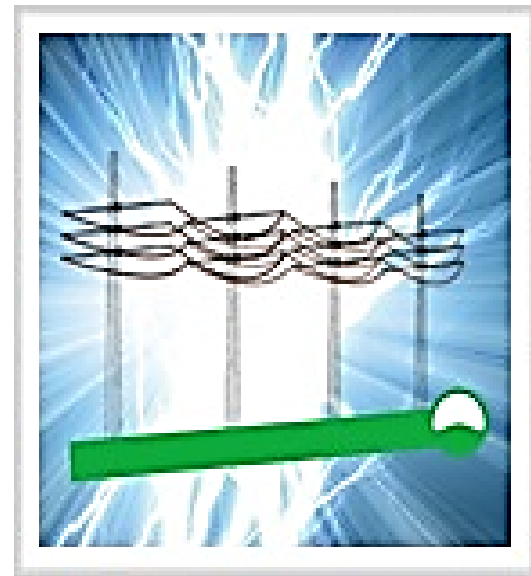
HUMAN ENERGY

Kinetic energy from your workout is converted to DC (Direct Current) and sent to the ReRev System.



CURRENT CONVERTS

ReRev converts the DC current into AC (Alternating Current), the form of electricity used by homes and businesses.



RENEWABLE ENERGY

The electricity can then be used to power the building.



https://pbs.twimg.com/profile_images/307315107/ReRev_web.jpg



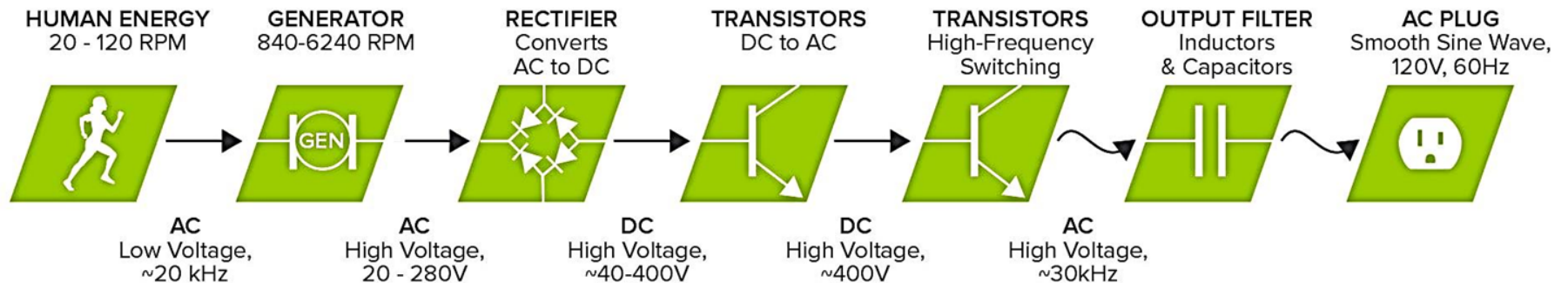
<https://i.ytimg.com/vi/hP8wU10qdaQ/maxresdefault.jpg>

PRECOR[®]

<http://snocohealth.org/wp-content/uploads/2013/10/Precor-Logo-LRG.png>

SportsArt - ECO-POWER

How it works:



http://sportsart.wpengine.com/wp-content/uploads/ECOPower_Landing_LetsGetTechnical_2000px-e1440446670233.jpg

SportsArt

http://mkttestsaa.com/wp-content/uploads/SportsArt_LOGO_440x952.png

SportsArt

Elliptical



http://sportsart.wpengine.com/wp-content/uploads/ECO-POWR_G875-Elliptical_Left3qtr2-375x400.jpg

Recumbent Cycle



http://sportsart.wpengine.com/wp-content/uploads/ECO-POWR_G575R-RecumbentCycle_Left3qtr-1-375x400.jpg

SportsArt

http://mkttestsaa.com/wp-content/uploads/SportsArt_LOGO_440x952.png

SportsArt

Upright Cycle

Indoor Cycle



http://sportsart.wpengine.com/wp-content/uploads/ECO-POWR_G575U-UprightCycle_3qtr-1-375x400.jpg



http://sportsart.wpengine.com/wp-content/uploads/ECO-POWR_G510-IndoorCycle_Left3qtr-1-375x400.jpg

SportsArt

http://mkttestsaa.com/wp-content/uploads/SportsArt_LOGO_440x952.png

TechnoGym Artis

ARTIS - RUN



http://www.technogym.com/library/catalog/product/cache/1/thumbnail/9df78eab33525d08d6e5fb8d27136e95/D/B/DBK0EVT_run_artis_gallery_01_29.jpg

ARTIS - SYNCHRO



http://www.technogym.com/library/catalog/product/cache/1/image/040ec09b1e35df139433887a97daa66f/D/B/DB503VT_synchro_artis_hero_01_23.jpg

TECHNOGYM

ARTIS[®]

ART IN MOTION

http://www.technogym.com/img/net/artis/logo_artis-payoff.jpg
<http://www.wellnessaccelerator.com/wp-content/uploads/2015/08/Logo-Technogym.png>

TechnoGym Artis

ARTIS - BIKE



http://www.technogym.com/library/catalog/product/cache/1/thumbnail/9df78ea b33525d08d6e5fb8d27136e95/D/B/DBC03VT_bike_artis_hero_1_23.jpg

ARTIS - RECLINE



http://www.technogym.com/library/catalog/product/cache/1/image/040ec09b1e35df139433887a97daa66f/D/B/DBD03VT_recline_artis_hero_01_23.jpg

TECHNOGYM

ARTIS[®]

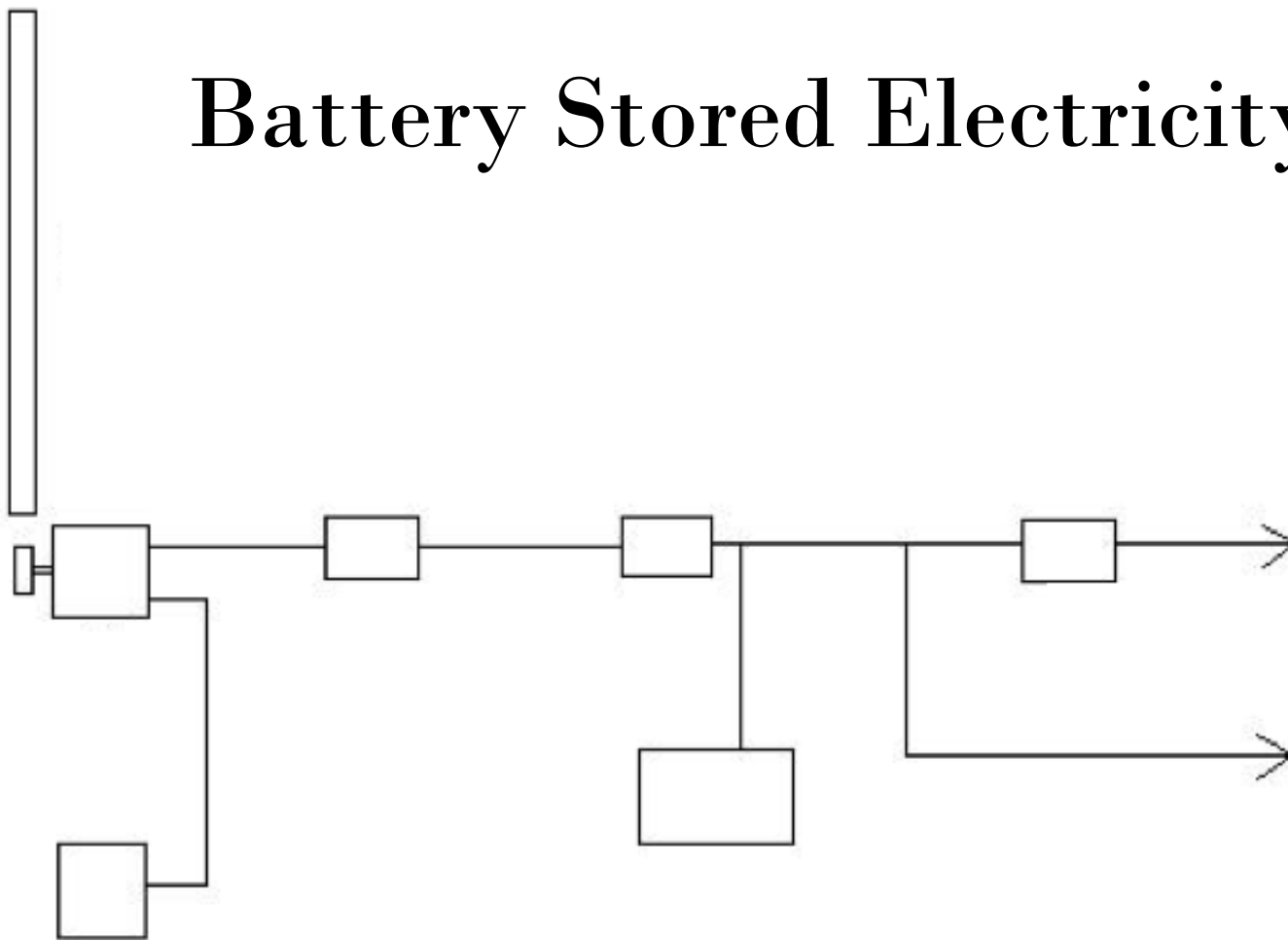
ART IN MOTION

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<http://www.wellnessaccelerator.com/wp-content/uploads/2015/08/Logo-Technogym.png>

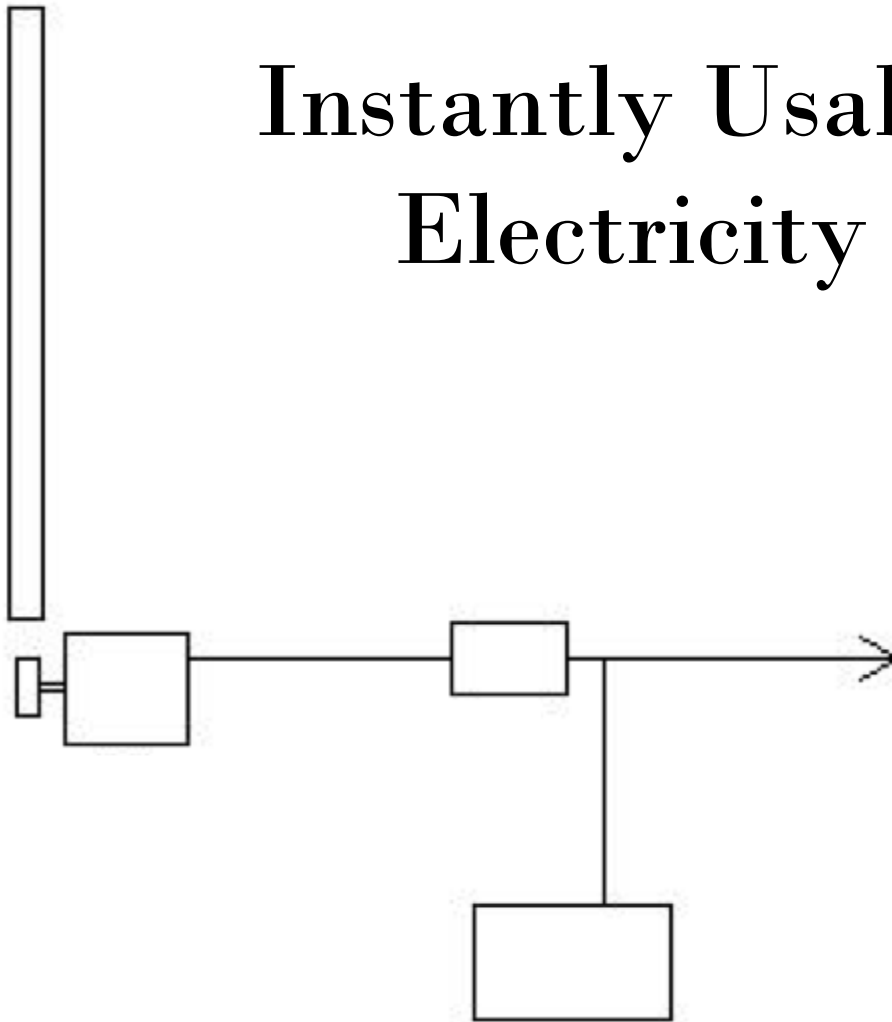
Local Technology



Battery Stored Electricity



Instantly Usable Electricity



| Type Of Equipment | PAC Equipment | ReRev | SportsArt | TechnoGym Artis | Local Technology |
|------------------------------|---------------|--------------|------------|-----------------|------------------|
| Elliptical | \$4,500 | Case-by-case | \$7,395 FC | \$10,390 | N/A |
| Treadmill | \$7,000 | N/A | N/A | \$13,290 | N/A |
| Upright Cycle Bikes | \$3,100 | N/A | \$3,995 FC | \$6,290 | N/A |
| Recumbent Cycle Bikes | \$3,500 | N/A | \$4,795 FC | \$6,690 | N/A |
| SPIN Bikes | \$1,100 | N/A | \$2,795 | N/A | \$400/bike |

Who is Using this Equipment?



<https://lh6.googleusercontent.com/-tLFi4IzWRQ8/AAAAAAAAAI/AAAAAAAAAL1s/imUWjAut39g/s0-c-k-no-ns/photo.jpg>

California State University
Northridge

http://csun.askonline.net/program_files/csun/logo.jpg



<https://blogs.uoregon.edu/newmediaculture/files/2015/11/UCF-logo-1mu7la5.jpg>

University of
**Central
Florida**



<http://augustafreepress.com/wp-content/uploads/2011/01/jamesmadisonlogopurplepc.jpg>

OSU

**Oregon State
UNIVERSITY**

http://cope.eecs.oregonstate.edu/VCS_tudy/img/osu.jpg



<http://s1.ticketm.net/tm/en-us/dbimages/87817a.jpg>



**HOTEL
GRAND
PACIFIC**

http://cdn1.buuteeq.com/upload/23861/hgp_logo_horiz_blues_pos.jpg?ver=1.9.60315.295

<http://thecprhero.com/wp-content/uploads/2013/10/chapman-uni-logo.gif>



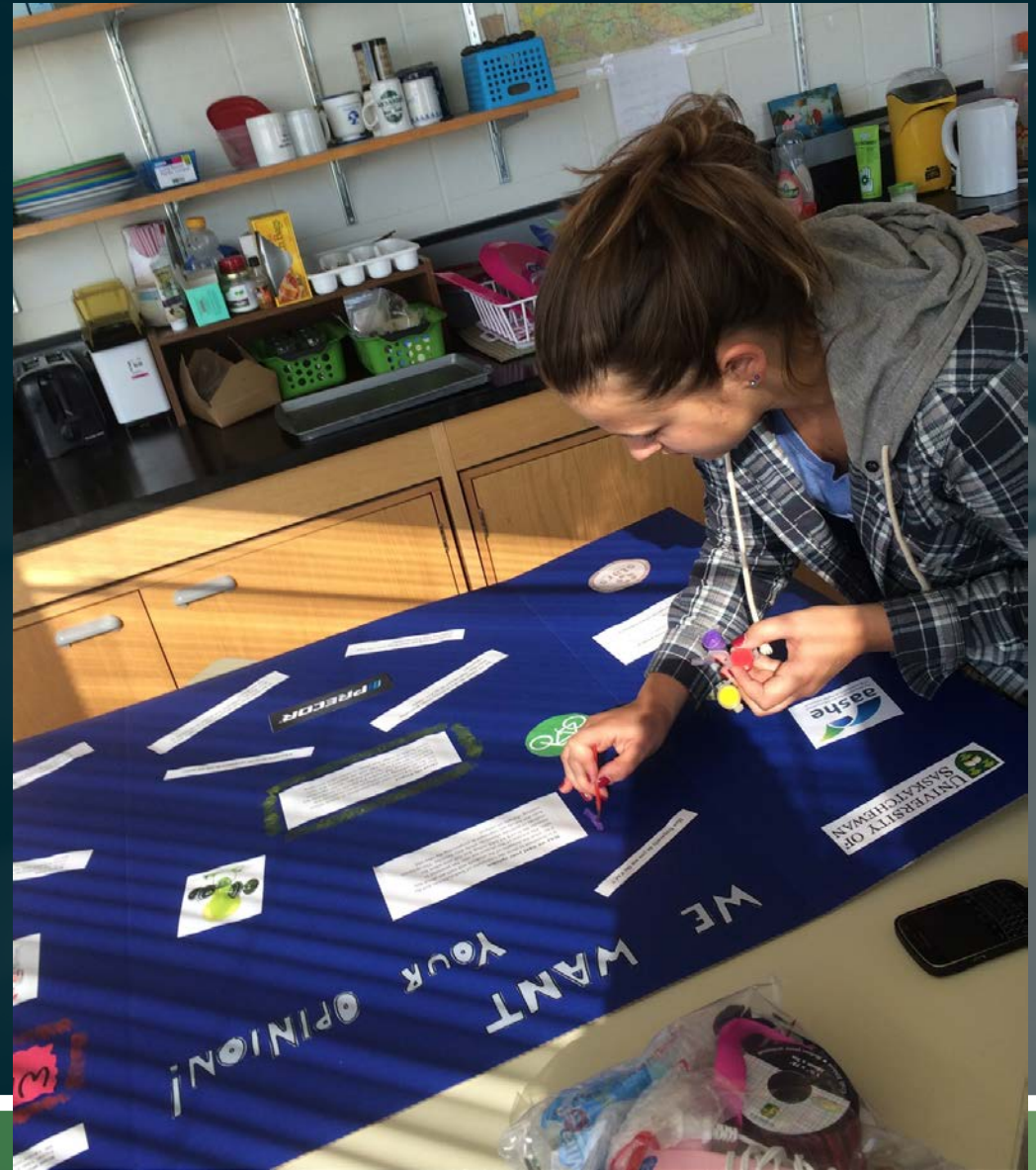
**CHAPMAN
UNIVERSITY**



http://www.miamiinfocus.com/photo_data/gallery_images/logos/eckerd_college_logo.jpg

ECKERD COLLEGE

Our Survey



Our Survey

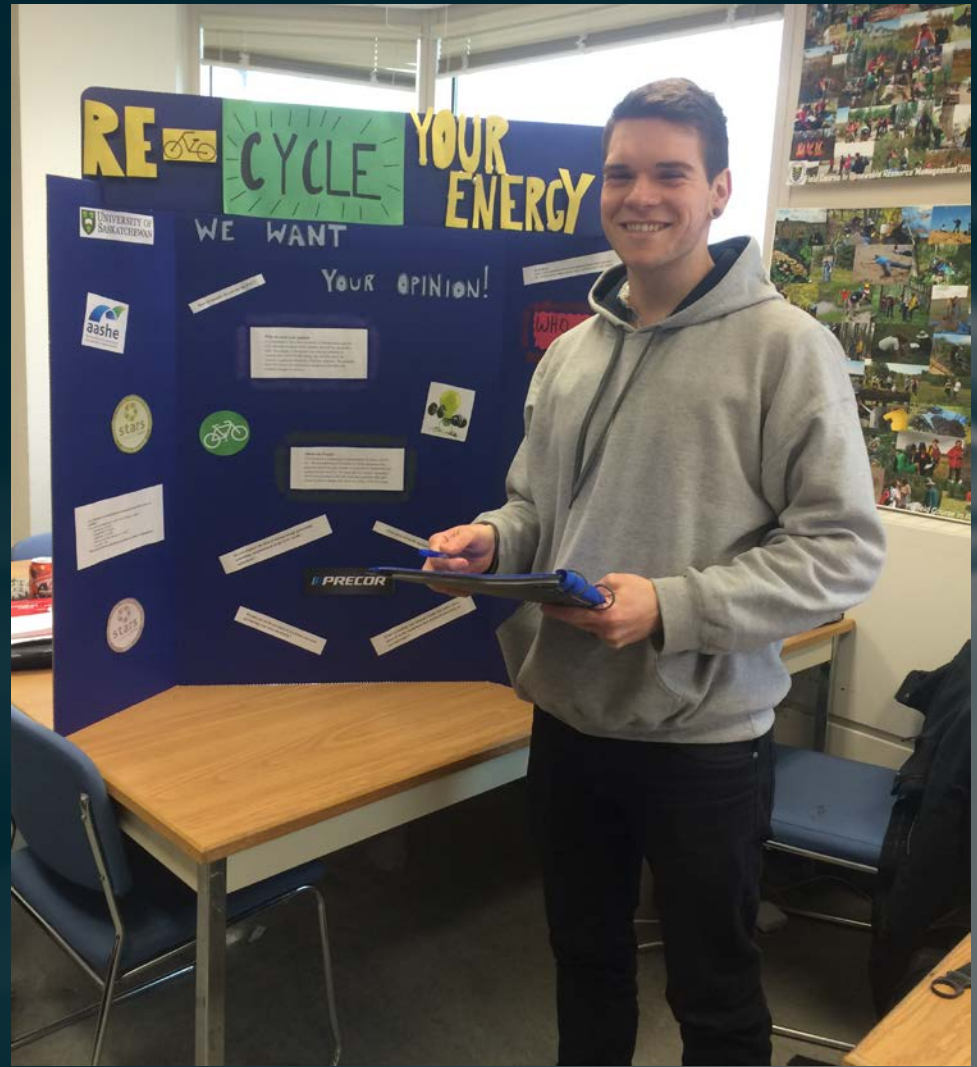




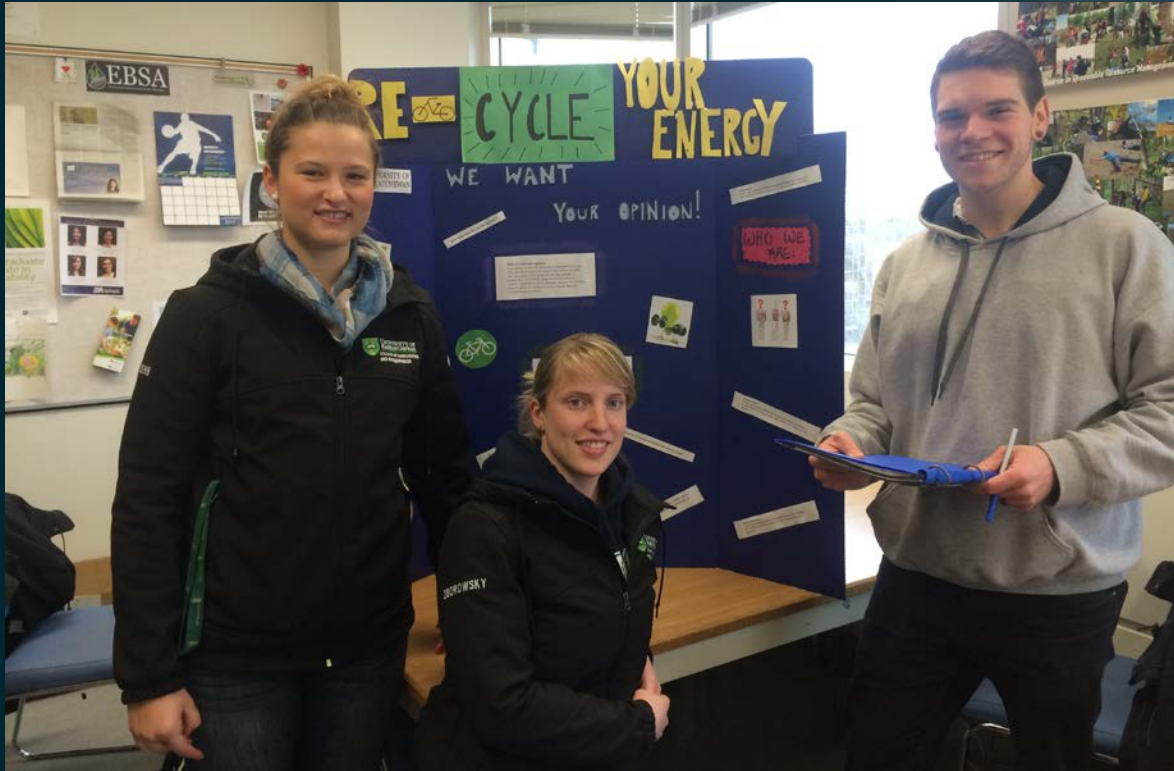
Our Survey



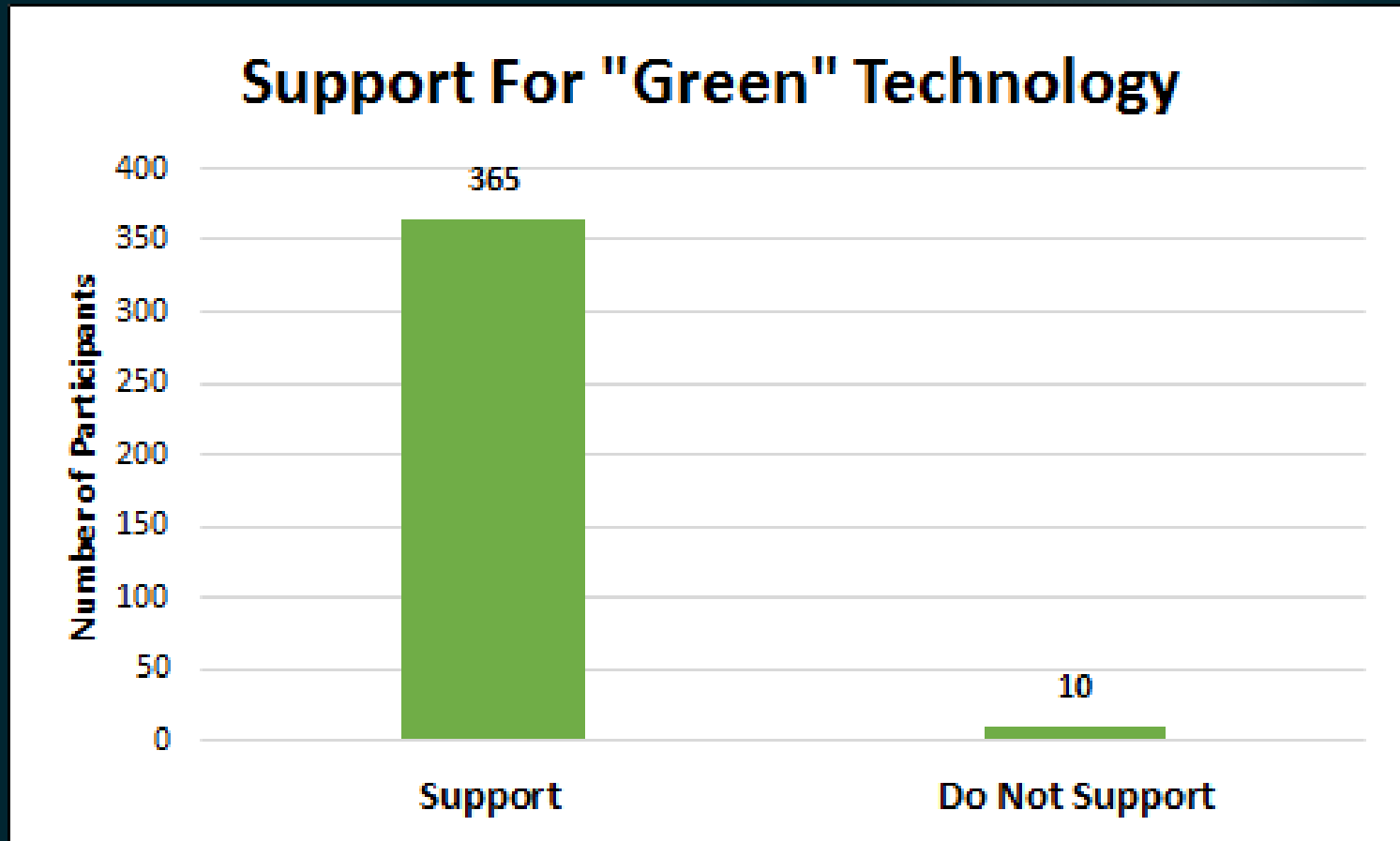
Our Survey



Our Survey

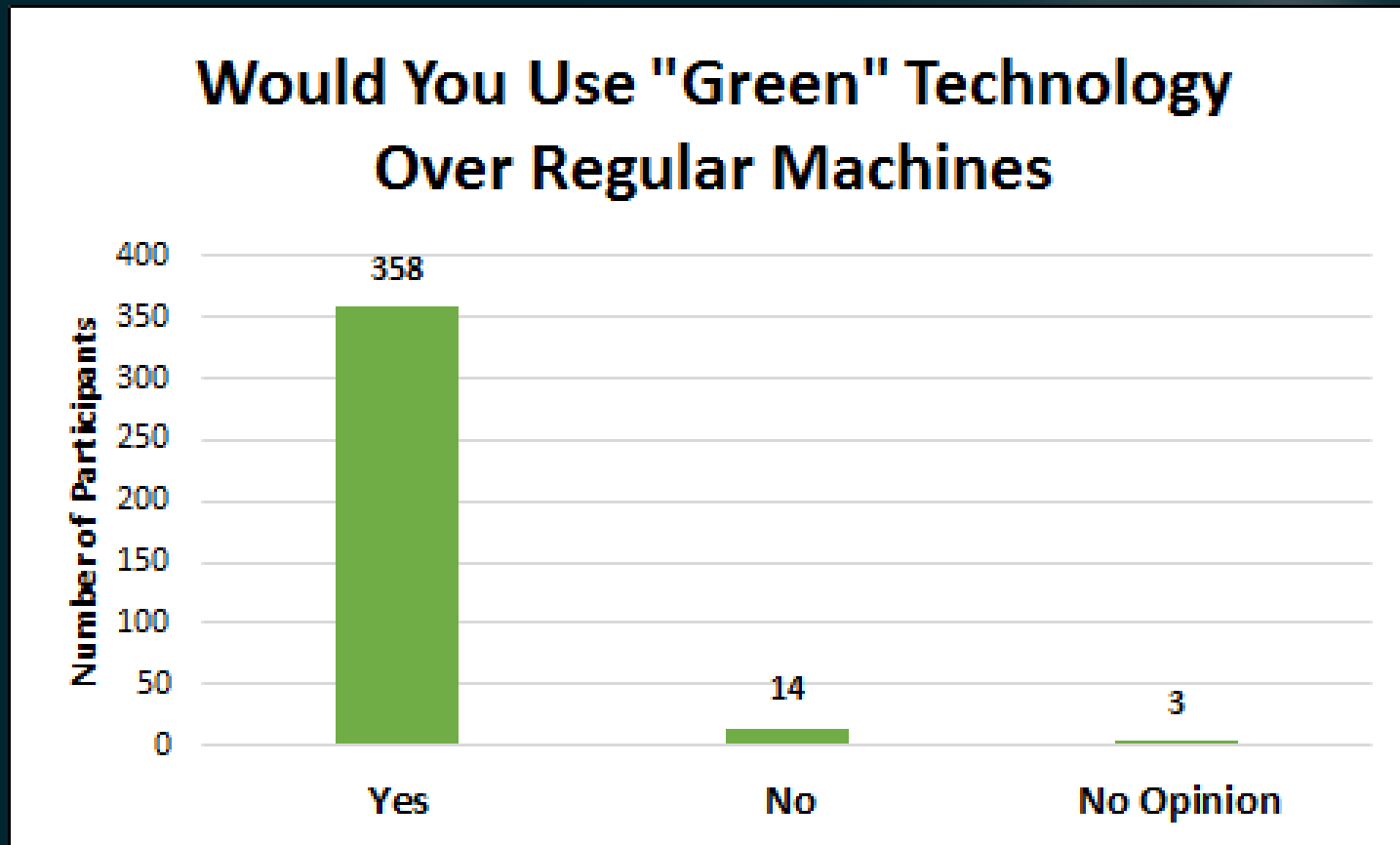


Question 1



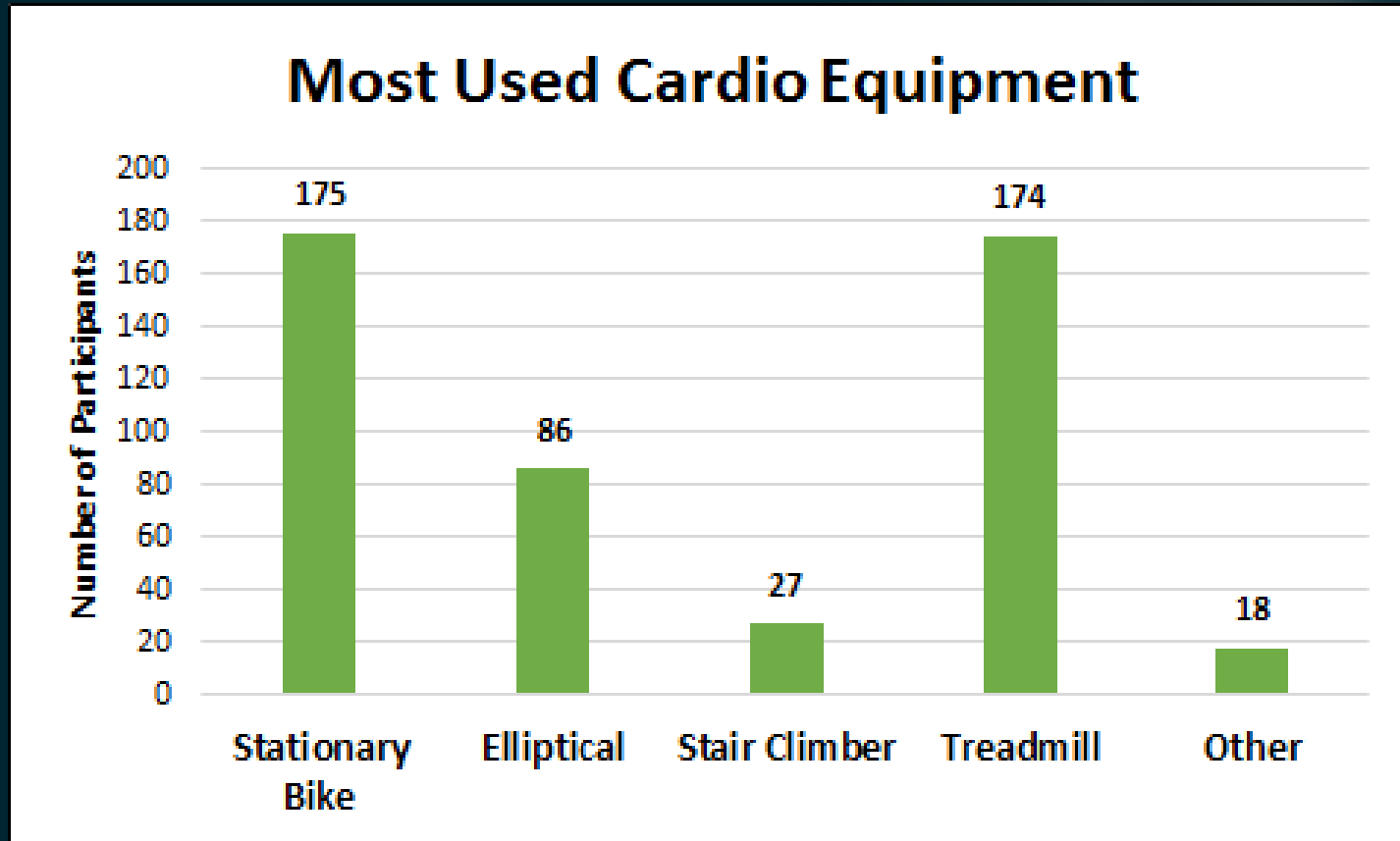
Do you support the idea of having energy generating technology implemented on the PAC cardio equipment?

Question 2



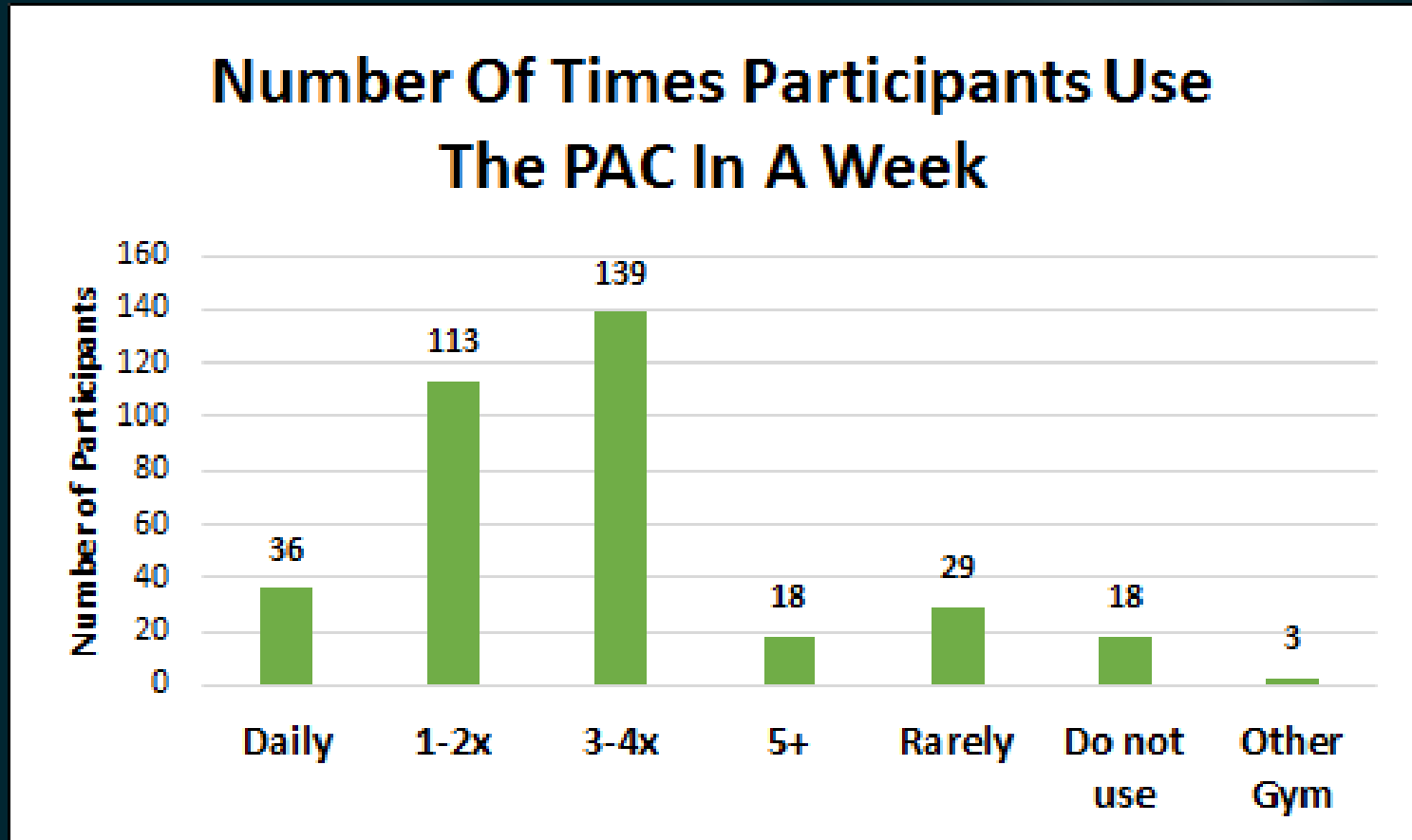
If this technology was adopted, would you rather use a piece of cardio equipment that produced electricity?

Question 3



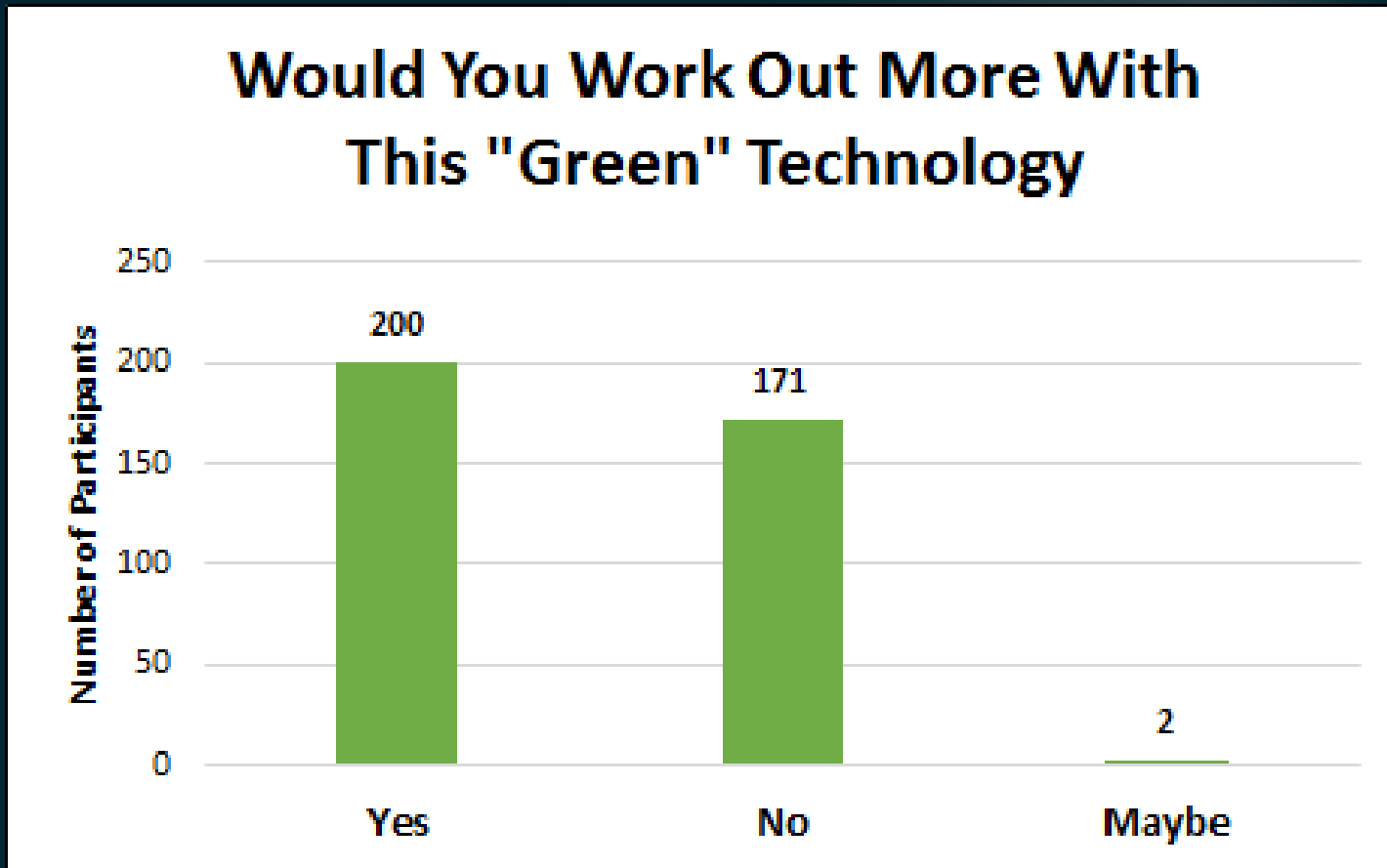
What piece of cardio equipment do you use most?

Question 4



How frequently do you use the PAC?

Question 5



Would you work out more if you knew you were producing your own electricity?



Comments on the Survey

“Great idea!”

“I think it would be a cool way to educate people about electricity consumption”

“Why aren’t we funding this?”

“Sounds like an unreal idea!”

“How much \$\$\$”

“Cost to implement?”

“Make it cheap; if it costs too much to make and maintain it defeats the purpose.”

“I don’t believe the benefits of elec-generating bikes outweigh the costs.”



Our Recommendation

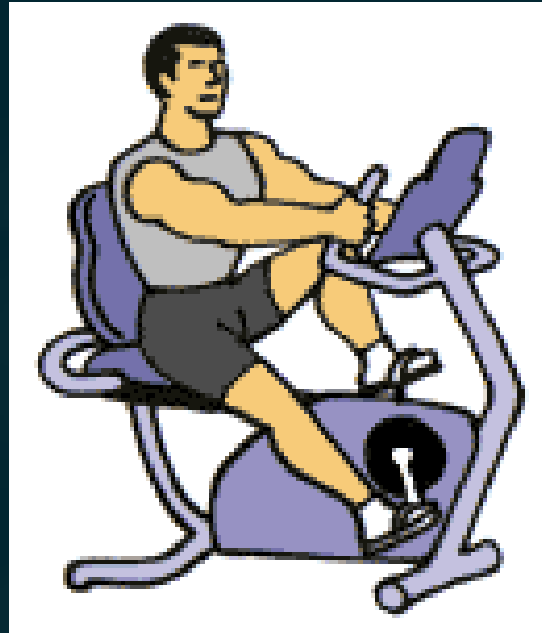
Equipment Replacement:

- *SportsArt is economically feasible*

Retrofit Equipment:

- *Implement local technology*

Questions?



http://www.exerciseplace.org/sitebuildercontent/sitebuilderpictures/Exercises/recumbent_bike.gif