

charityengine 

Proud participant of



Humanity's biggest problems

- **Extreme poverty**
 - Billions don't have clean water, sanitation, food, micro-nutrients, shelter, education, opportunity
- **Disease**
 - Billions will die from malaria, cancer, HIV, TB, cholera, diarrhoea or be crippled by polio, Alzheimer's, arthritis, river blindness, etc
- **Unsustainable growth and finite resources**
 - Fossil fuels, rainforests, mined fertilizer, rare earths – even uranium won't last forever

Keys to solving them

- **Money**
 - Obviously. Pays for wages, equipment, resources
- **Cheap clean energy**
 - Fixes major problems – can desalinate seawater, irrigate deserts, extract minerals from oceans or asteroids, capture CO₂, end climate change
- **Emerging tech**
 - Next-gen drugs, solar cells, turbines, cars, aircraft, engines, meta-materials, fusion reactors, biotech, genetics, robotics, nanotech, smart grids, AI

So a \$2Tn supercomputer might help

- **Over two billion interconnected PCs**
 - Each 10x more powerful than Deep Blue, the IBM supercomputer which beat Garry Kasparov
 - Typically over 95% idle at any given time
- **Over two billion mobile devices**
 - Each more powerful than a PC from ten years ago
 - Spend most nights just watching a battery charge
- **Over \$1Bn of computing wasted daily**
 - Even at trivial price of 1c/hr per machine

How to harness it?

- **Offer to buy the surplus compute power**
 - Been tried, doesn't work for home users – a few pennies per day doesn't impress anyone
 - PC power only valuable *en masse*, not individually
- **Ask for volunteered resources**
 - Only works for popular science projects
 - Growth is flat; all the science fans are taken
 - New projects dare not compete for volunteers

Over \$2Bn-worth of PC time already donated to science in last decade

 gridrepublic volunteer computing

fight **AIDS** @home  powered by **AUTO DOCK**

 The Olson Laboratory 

 Sponsors of Tomorrow.™

PROGRESS
THRU
PROCESSORS



 **SETI@home**
The Search for Extraterrestrial Intelligence

openMalariaB minirosetta

malariacontrol.net
Application: openMalaria: A simulators...



Running

Elapsed Time: 1 hr 21 min 37 sec
Time Remaining: 0 hr 52 min 18 sec

60.7%

My Projects:  Synchronize ?

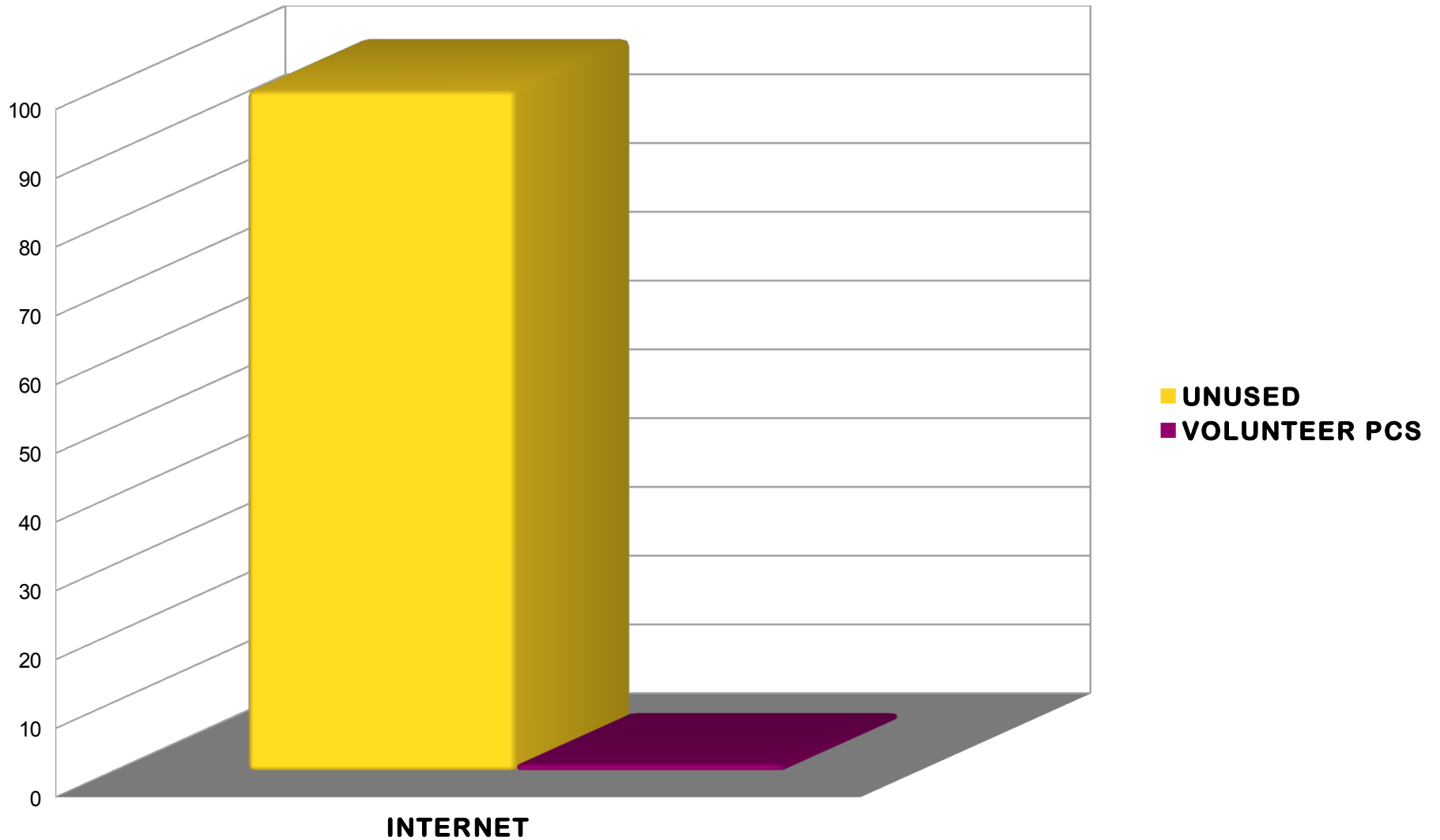
Messages | Pause | Preferences | Advanced View

 world community grid.
technology solving problems

 climateprediction.net

 **EINSTEIN@HOME**
EINSTEIN@HOME
Catch a Wave From Space

By less than 0.1% of PC owners



It's not a technical problem

It's not a technical problem

It's a marketing problem

How to persuade the other 99.9%?



100%

JACKPOT PROGRESS
Next award at 100%

Charity Engine: The best PC app ever invented?

- 1) Completely free to download
- 2) Lets any PC constantly make money for charity
- 3) Pays out huge prizes

Takes less than a minute to install, then you never have to do anything else.

As recommended by [Oxfam](#), [CARE](#), [Amnesty](#), [MSF](#), and more. For Mac, Linux & Windows based PCs.

[Download](#)

Previous Lucky Winners



Nick Thweatt
Washington State, USA
\$2,000



M Dedi Rudianto
Indonesia
\$10,000



Matthew Bibby
Victoria, Australia
\$5,000

[Learn more](#)



515K



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Charity Engine sells the surplus PC time, then shares the profits as charity donations and random prizes



Huge cash rewards for helping the world's top charities, no effort required – what's not to like?

The Facebook logo, consisting of the word "facebook" in a white, lowercase, sans-serif font with a registered trademark symbol (®) to the right, set against a solid dark blue rectangular background.

facebook®

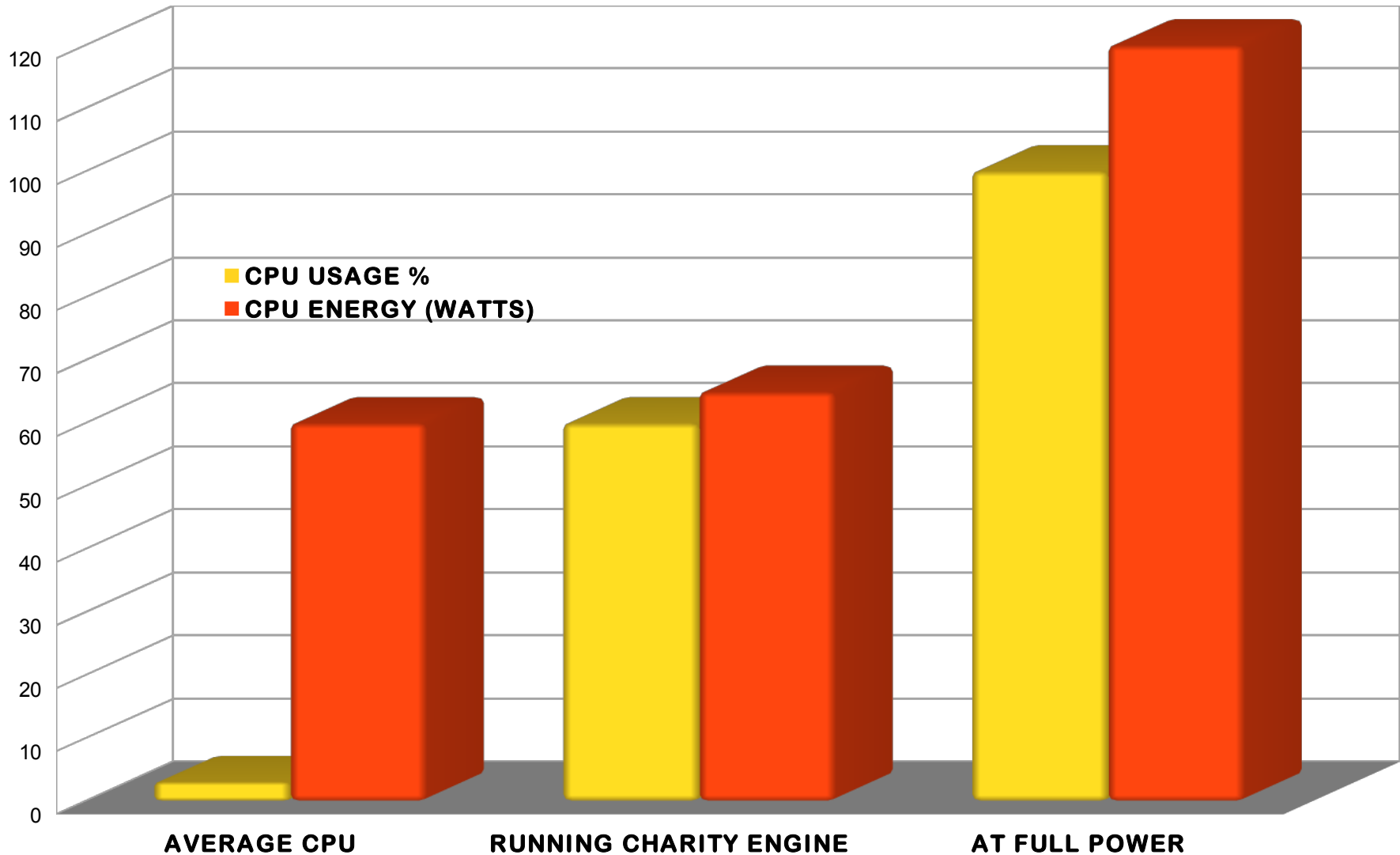
503,187

like this

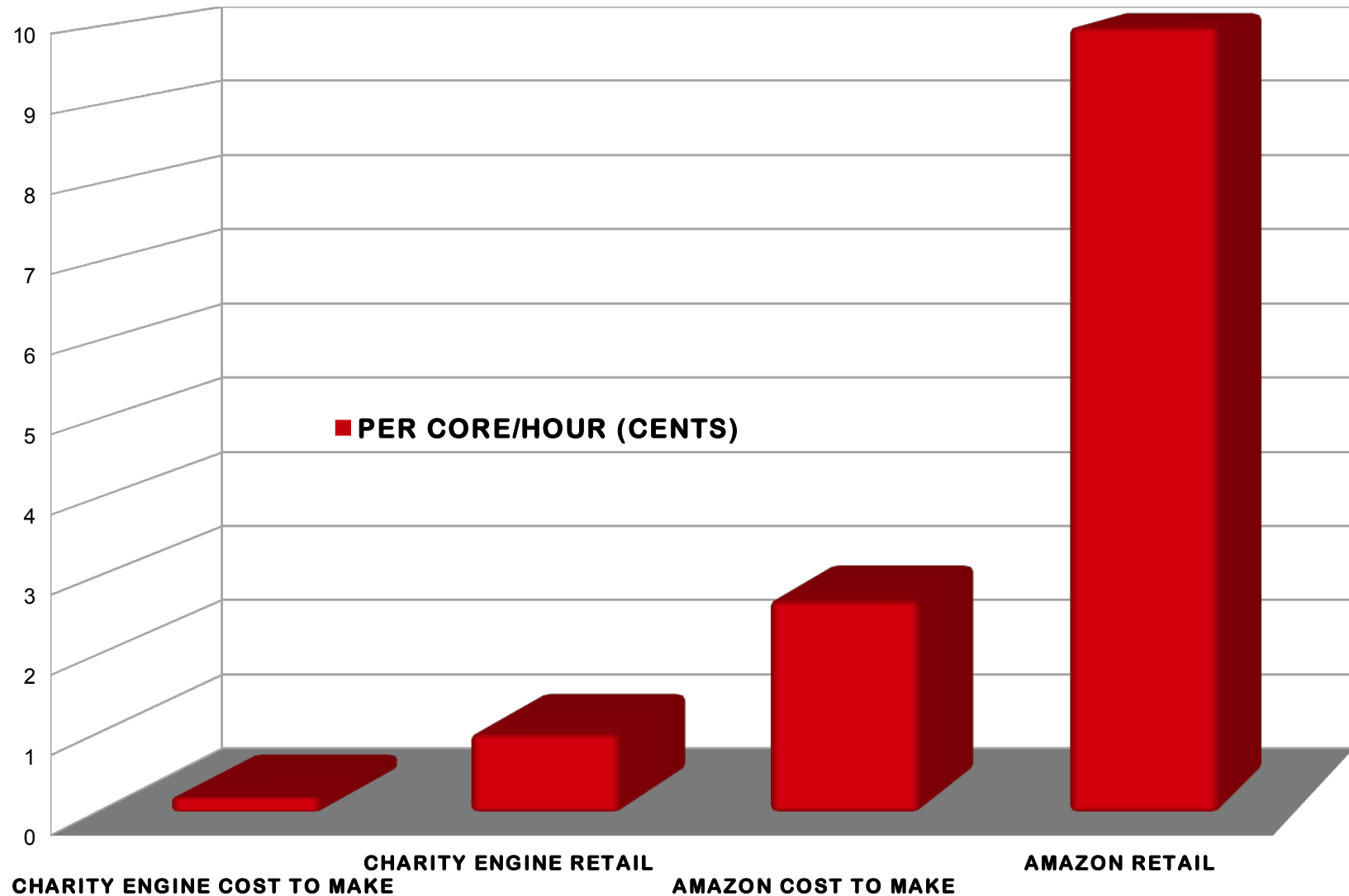
Even if the user doesn't win a prize,
they're always computing for good



Silent, low-energy background task – about same as charging two phones



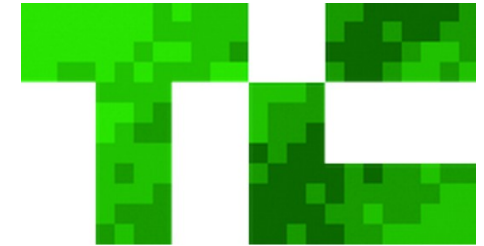
Result: world's cheapest, greenest computing platform – all from spare capacity nobody was using anyway



Tech press already aware



The 'greenest' volunteer grid of them all?



Idle home PCs could raise cash for Charity Engine

By Mark Ward
Technology correspondent, BBC News



Spare Some Idle CPU Cycles For Charity This Season



January 12, 2012

Ethical Supercomputing

Michael Feldman



Charity Engine: The Even Cheaper Cloud Supercomputer? by Matthew Weinberger on 1.6.12



Charity Engine: The Ethical Supercomputer That Can Win You \$10,000

The Charity Engine team

- **Mark McAndrew, CEO**
- **Mark Roberts LLB MBA, CLO**
- **Robert Pearce MBA ACCA, CFO**
- **Regis Dubois, CTO**
- **Phil Robertson, CMO**
- **Matt Blumberg, lead tech contractor**
- **Tristan Olive, tech contractor**
- **Rytis Slatkevičius, tech contractor**
- **Jonathan Brier, community liaison**

Advisors and industry recognition

- Prof David Anderson, BOINC Director, UC Berkeley
- Prof Stephen Wolfram, Wolfram Research
- Anil Hansjee, ex-head of M&A, Google EMEA
- Michael Geer, previously founder of Badoo
- Andrew Romans, General Partner, The Founders Club
- Dr Ethan Siegel, astrophysicist and award-winning blogger
- Dr David Gorski, oncologist and award-winning blogger
- Andreas Bauer, MD, four40 Ventures Ltd
- *Smarta 100 Award, Accelerate 250, CTC Best Cloud Pitch, Member of International Desktop Grid Federation, HPC UberCloud Experiment and Cloud Advisory Council*

Current situation

- Partnered with two Asian grids of several million office PCs each, more supply than we can handle
- Distributed storage feature coded for us by UC Berkeley, will backup huge datasets (eg. Wikipedia) and power a CE-branded peer-to-peer CDN
- Mathematica being ported with Wolfram Research, CE to be trialled as a Windows 8 'live tile' on Dell PCs
- Android version just coded, will allow CE to harness over 500m idle smartphones when charging at night
- Two secret sauce apps that guarantee earnings from any unsold capacity: Project ce3 makes 0.75c/hr on GPUs, Project ce5 makes 0.25c/hr per CPU core

Next steps

- **The killer app: a distributed web-crawler**
 - *“If everyone starts running a distributed indexing system, searching would certainly improve drastically.”* - Brin & Page, 1998
 - Perfect low-CPU task for mobile
 - Multiple IP addresses can crawl anywhere
- **Go big on the marketing**
 - Every PC guaranteed to earn, time to grow
 - Need 1000s more public PCs