



Borger • Pampa • Oklahoma City

Amarillo • Shamrock

Hereford • Clarendon

Muleshoe •

Plainview •

Childress •

Wichita Falls •

Vernon •

Lubbock •

Gainesville •

Sherman •

Paris •

Brownfield •

Post •

Graham •

Denton •

Greenville •

Mount Pleasant •

Seminole •

Lamesa •

Stamford •

Fort Worth •

Dallas •

Sulphur Springs •

Marshall •

Andrews •

Snyder •

Abilene •

Mineral Wells •

Arlington •

Tyler •

Longview •

NEW MEXICO

El Paso •

Monahans •

Pecos •

Midland •

Ballinger •

Coleman •

Hillsboro •

Corsicana •

Henderson •

Odessa •

San Angelo •

Brownwood •

Waco •

Fairfield •

Palestine •

Nacogdoches •

Van Horn •

Fort Stockton •

Brady •

Crockett •

Jasper •

Alpine •

Sonora •

Junction •

Temple •

Huntsville •

Livingston •

Sanderson •

Rocksprings •

Fredericksburg •

Austin •

Brenham •

Conroe •

Beaumont •

Presidio •

Del Rio •

San Marcos •

Houston •

Baytown •

Arthur •

MEXICO

Uvalde •

San Antonio •

Wharton •

Texas City •

Galveston •

Eagle Pass •

Victoria •

Freeport •

Crystal City •

Beeville •

Port Lavaca •

George West •

Alice •

Corpus Christi •

Laredo •

Kingsville •

Gulf of Mexico

0 100 mi



El Paso, TX



El Paso, TX



El Paso, TX



El Paso, TX





Borger • Pampa
Amarillo • Shamrock
Hereford • Clarendon

Oklahoma City

herman • Paris
McKinney • Greenville
Dallas • Sulphur Springs
Terrell • Marshall

NEW MEXICO

El Paso, TX

Mor...
Pecc...
• Van Ho...
Alpine •
Sanderson •
Presidio

MEXICO

Eagle...
• C...
• C...

LOUISIANA

ngview
Anderson
Macogdoches
ufkin
Jasper
Livingston
Reasumont

100 mi





Friday, October 4, 2013



Integrated Enterprise-Wide Advanced Control Systems

Soft Grid: Data Storage, and Analytics

Rackspace SAS Oracle EcoFactor Convergys Cico IBM Teradata VMware EMC² Space-Time Insights
 Aclara Power Solutions Power Analytics SAP EDX Wireless Intergraph Mitssoft GRIDant OGIsoft Hansen Technologies



Application Layer

Grid Support: Managing distributed energy

Xtreme Power A123 Systems Greenlots NGK Insulators Clipper Creek Locus Energy AeroVironment
 Beacon Power (Flywheel) ECOality Coulomb General Microgrids Vycon Better Place Ice Energy
 Petra Solar SANYO Primus Power Enphase Energy SMA Xtreme Power Axion Power Prudent Energy

Network Operations: Network monitoring and control

Schneider Electric Cooper Power Systems Verity (ABB) Survalent Siemens Etacec OSI International Toshiba Alstom ETAP GE

Transmission: Wide area controls and applications

XD Group Toshiba ABB SEL Alstom Grid Crompton Greaves Siemens American Superconductor GE

Distribution Automation: Reliability, real-time monitoring and intelligent control

ABB Cooper Power Systems Doble Schneider Electric BPL Global Crompton Greaves G&W Electric GridSense
 Hubbell Inc. S&C Electric Co. Sentient Energy Gridco Systems Siemens PowerSense Eaton GE
 Tollgrade Comm. XD Group Utilidata Toshiba SEL Dynamic Ratings Varentec OptiSense Networks Etacec

AMI Infrastructure: Manage distributed energy

eMeter Itron Aclara Ecologic Analytics Wason Group Oracle Holley OGIsoft Silver Spring Networks Triliant
 Telvent Elster Energy/ICT ElectSolve GE Echelon Harris Utilities Landis+Gyr ELO Sistemas Sensus Elster

Communications: Networking platform

Current Group Airspan Elster Nexgrid Fujitsu Proximity Alcatel-Lucent AT&T Verizon Cisco Sensus
 Ericsson RuggedCom GridMaven Qualcomm Huawei Amperion Ambient S&C Electric Co. Tropos
 Freewave On-Ramp Wireless Sierra Wireless Sprint Sunet LiveData Silver Spring Networks Power Tagging Tantalus Triliant

Demand Side Management: Energy management systems, portals and apps

EnerNOC Comerge
 Veridy Energy SynapseSense
 Consort SCEnergy
 Honeywell 4Home
 AlertMe Elektra
 Opower Eregin
 Alarm.com Energy Hub
 iControl Energy Aware
 Control4 INSTEON
 Onzo Verdiem
 EcoFactor Energate
 Tendri Sequentric
 Acura Technologies
 Calico Energy Services
 Integral Analytics
 Advanced Telemetry
 Greenwave Realty
 Powerhouse Dynamics
 Constellation Energy
 Johnson Controls
 Radio Thermostat
 Digi International

Platform and Analytics

Integration and Consulting

Security

Tohno McAfee Industrial Defender Reverse Security Symantec iDaptive Boeing Cylance Lockheed Martin

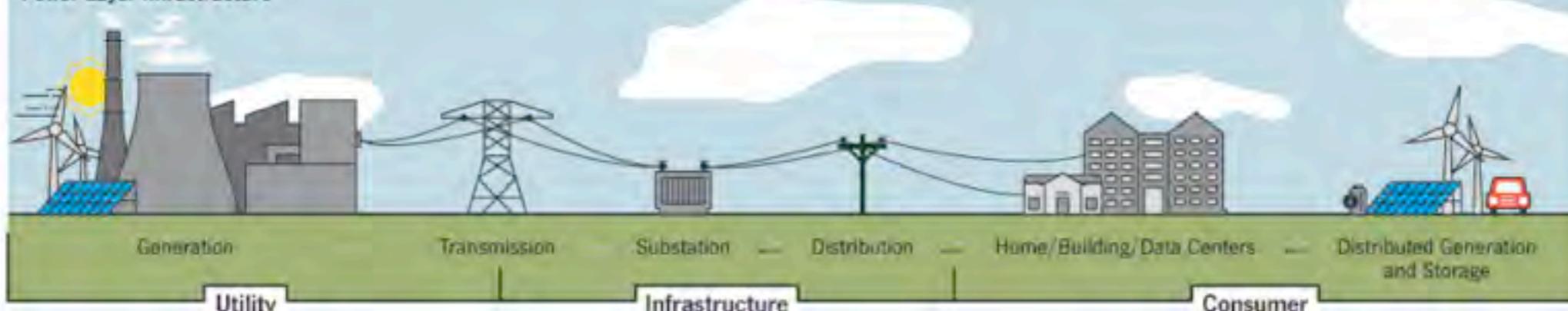
CSC Wipro EMC² SAIC Capgemini Bobbie Green Energy Corp. Black & Veatch Accenture IBM Quanta Tech Quality Logic Bridge Energy Group DNV KEMA

Communication Layer (H/W. S/W/ Control)

Network Gateway

Smart meter & Broadband

Power Layer Infrastructure



Industrial Defender

Integrated Enterprise-Wide Advanced Control Systems

Soft Grid: Data Storage, and Analytics

- Rackspace, SAS, Oracle, EcoFactor, Converys, Cisco, Avaya, Teradata, VMware, EMC, Space-Time, Ingersoll Rand
- Aclara, Power Solutions, Power Analytics, SAP, EDX Wireless, Verigraph, Mitssoft, GRIDart, OSIsoft, Hansen Technologies

POWER

FIRST FUEL

Consumer Energy Management Systems & Networks

Grid Support: Managing distributed energy

- Xtreme Power, A123 Systems, GreenIQ, SolarEdge, SunPower, Sungevity
- Beacon Power (Flywheel), ECOality, Coulomb, General Microgrids, Vycon, Power Place, Ice Energy
- Petra Solar, SANYO, Primus Power, Enphase Energy, SMA, Xtreme Power, Power Place, Prudent Energy

Network Operations: Network monitoring and control

- ABB, Schneider Electric, Etacec, OSI International, Toshiba, Alstom, ETAP
- SEL, Siemens, American Superconductor, GE



Meter Data

Demand Side Management systems, portals and apps

- EnerNOC, Converge, Veridy Energy, Synapse, SCiEnergy, HomeAlertM, Elektronika, Energy Hub, Energy Aware, Orzo, EcoFactor, Tendri, Sentilla, Active Technologies, Calico Energy Services, Integral Analytics, Advanced Telemetry, Greenwave Realty, Powerhouse Dynamics, Constellation Energy, Johnson Controls, Honeywell, Dig International



ENERNOC

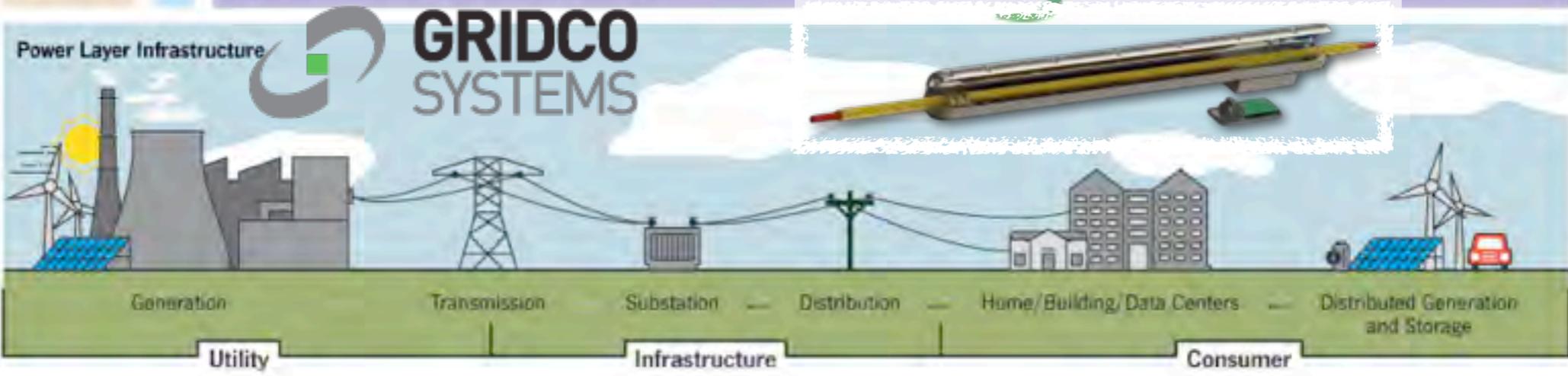
Communication Layer (H/W. S/W/ Control)

- Current Group, Airspan, Elster, Nexgrid, Fujitsu, Proximity, Alcatel-Lucent, Alcatel, S&C Electric Co, Tropos
- Ericsson, RuggedCom, GridMaven, Qualcomm, Huawei, Silver Spring Networks, Triliant
- FreeWave, On-Ramp Wireless, Sierra Wireless, Sprint, Snet, LiveData, ELO Sistemas, Sensus, Elster

Power flow control for the Grid

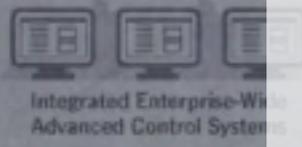
SWG

Network Gateway Smart meter & Broadband



- Security**: Tobac, McAfee
- Integration and Platform and Applications**: CSC, Wipro, EMC, S&C

Industrial Defender



Integrated Enterprise-Wide Advanced Control Systems

Cybercell Lockheed Martin

Energy Energy Group

OP@WER

Soft Grid: Data Storage, and Analytics

Rackspace SAS Oracle EcoFactor Converge Doco Law Teradata Veeva OneSpace-Time Designs

Actara Power Solutions Power Analytics SAP EDX Wireless Evergraph Mitssoft GRIDant OGSsoft Hansen Technologies

Xtreme Power A123 Systems Green

ED2city Primus Power

Beacon Power (Flywheel) Petra Solar SANYO

Network Operations

FIRST FUEL

BUILDING ENERGY ANALYTICS



ENERNOC

Power flow control for the Grid

SWG

Smart meter & Broadband

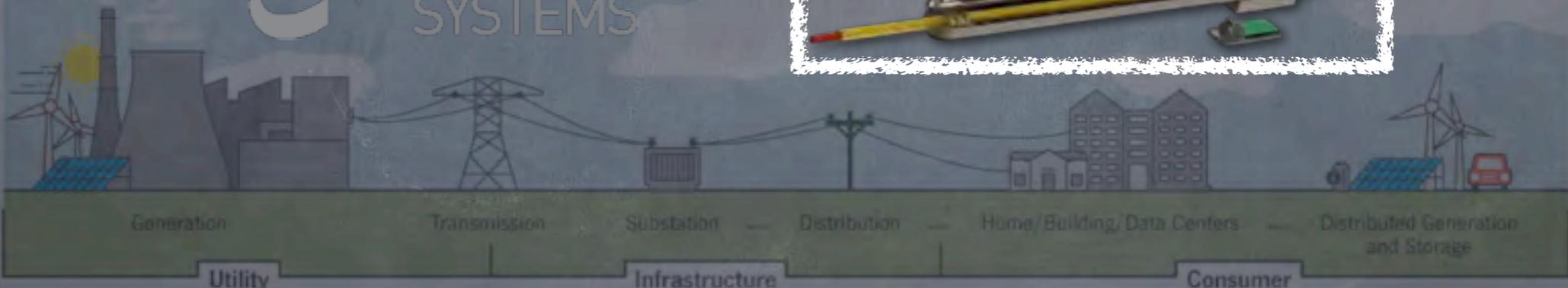


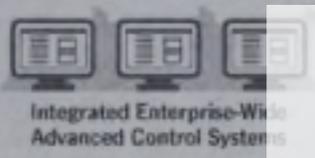
Communication Layer (H/W, S/W/ Control)

Power Layer Infrastructure

GRIDCO SYSTEMS

Industrial Defender



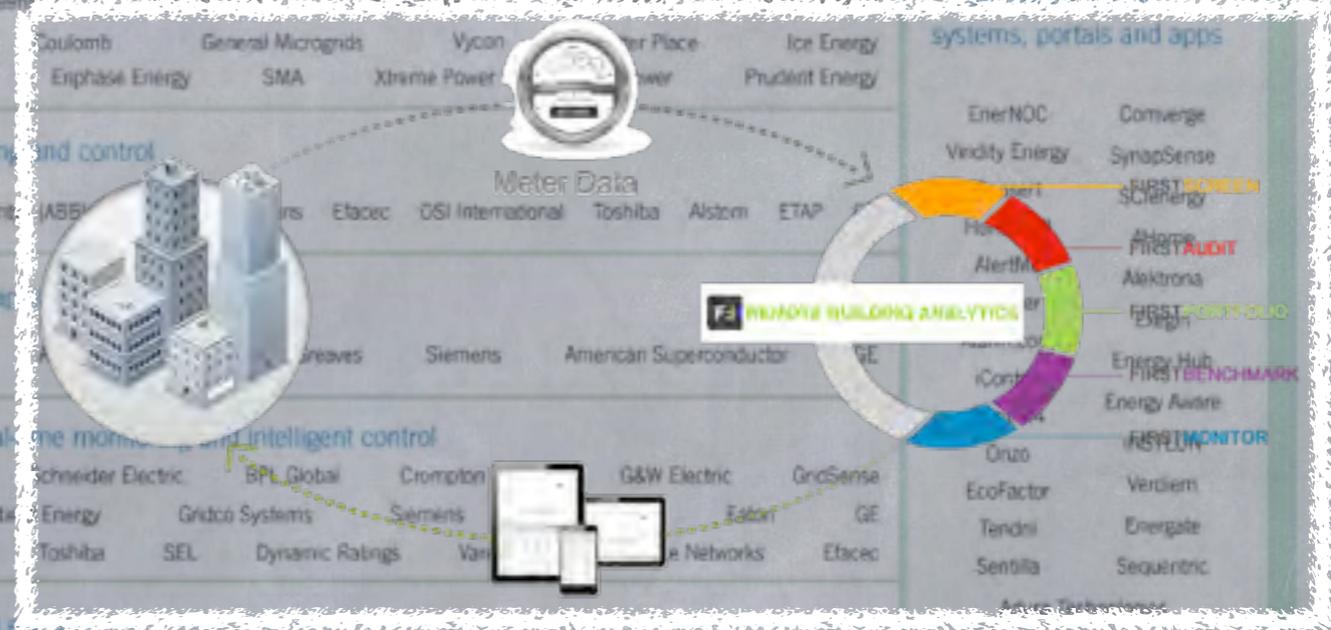
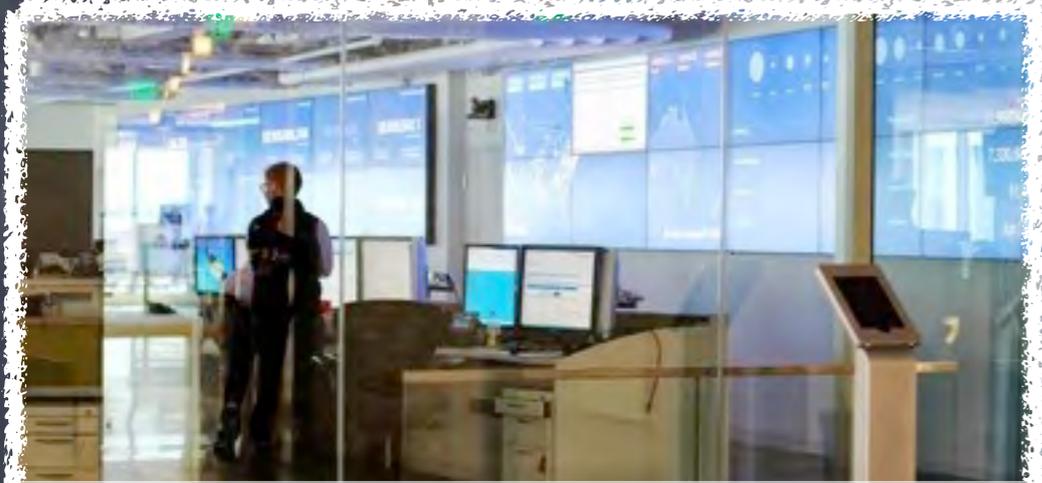


Soft Grid: Data Storage, and Analytics

OPower

FIRST FUEL

BUILDING ENERGY ANALYTICS



ENERNOC

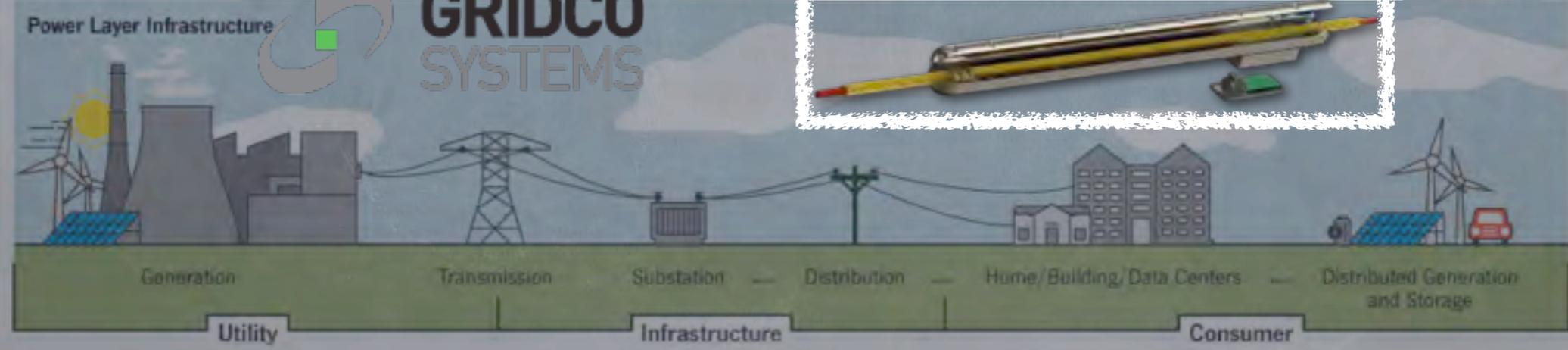
Power flow control for the Grid

SWG

Smart meter & Broadband



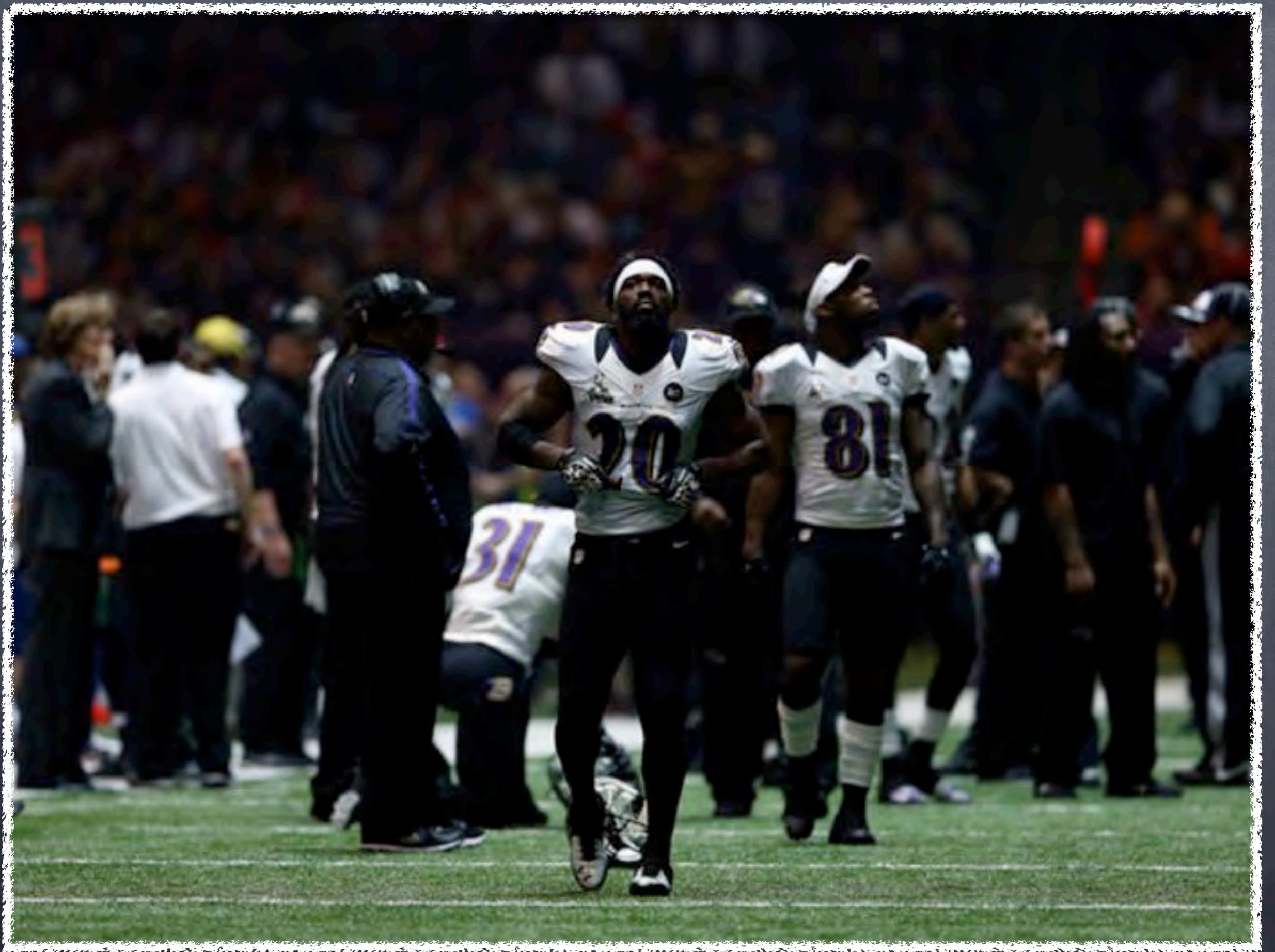
GRIDCO SYSTEMS





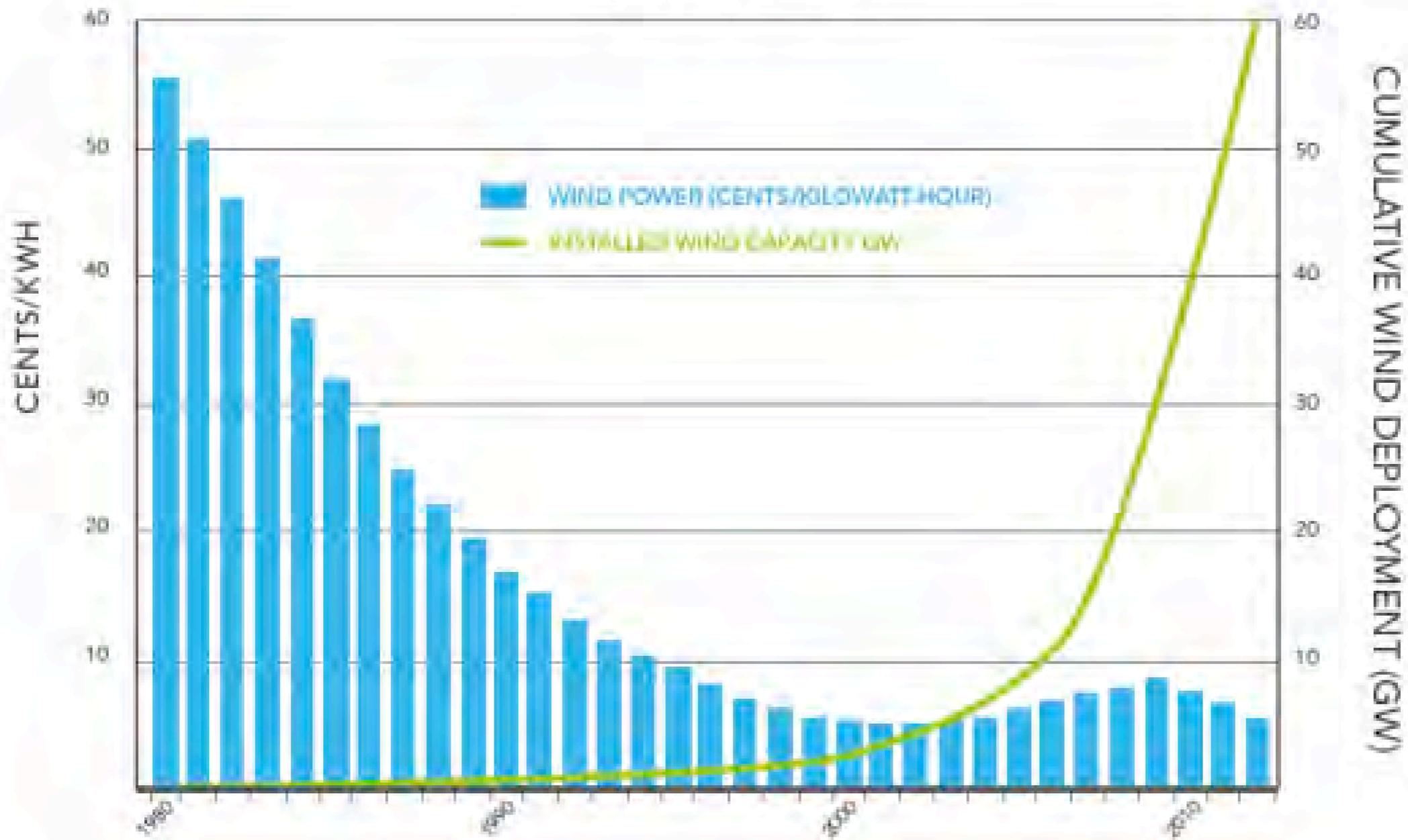
Friday, October 4, 2013



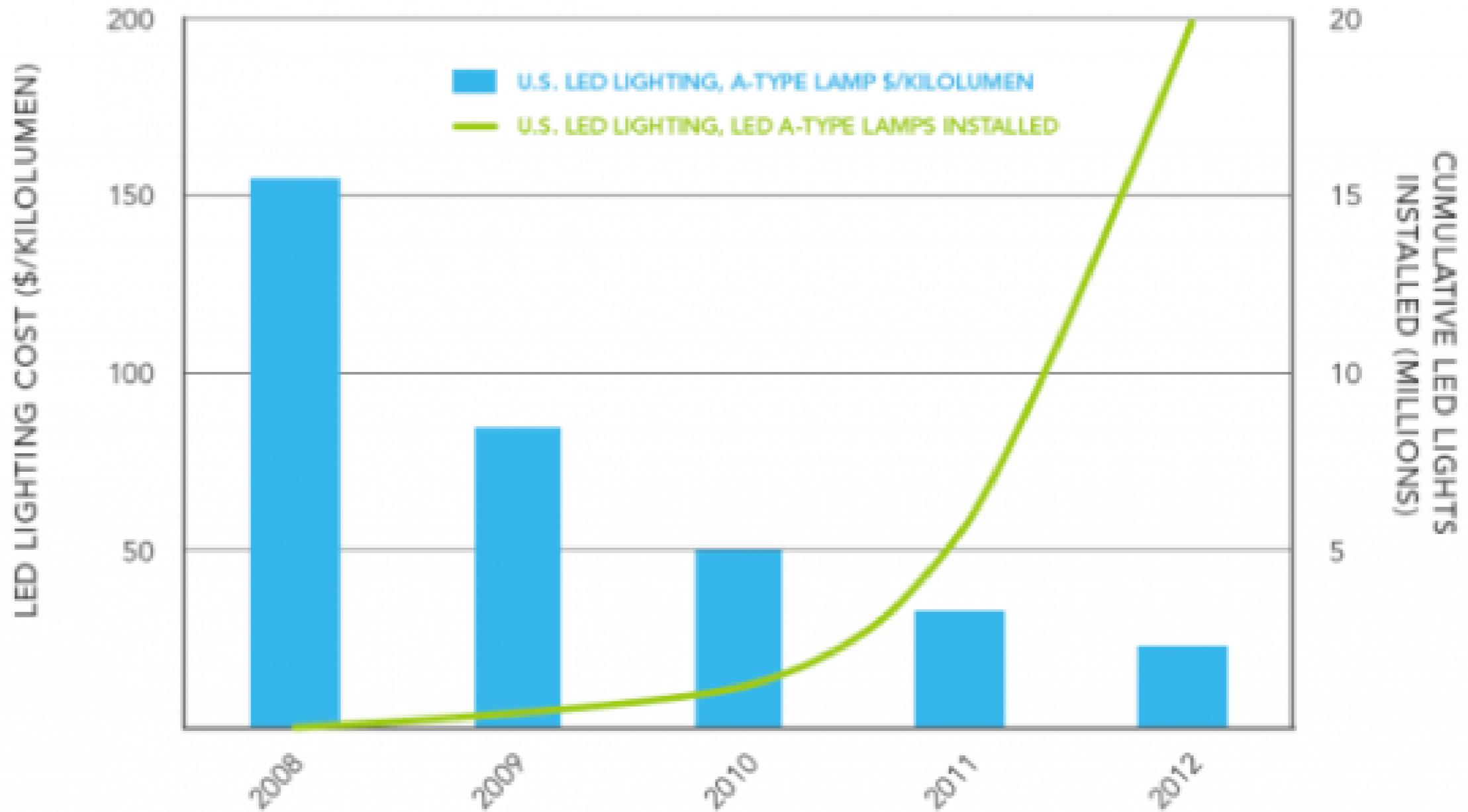


Friday, October 4, 2013

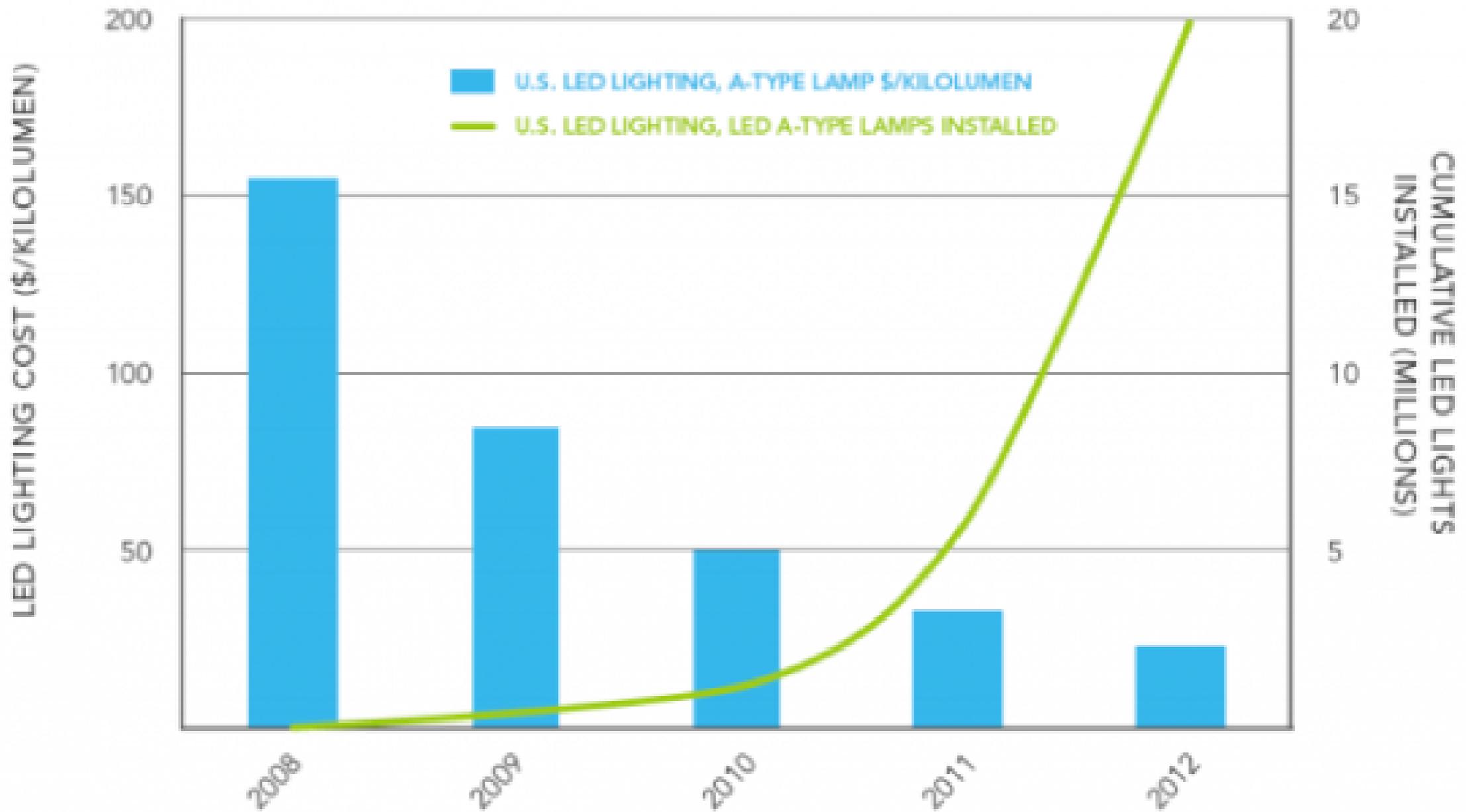
Deployment and Cost for U.S. Land-Based Wind 2008-2012



Deployment and Cost for LED Lights Installed 2008-2012



Deployment and Cost for LED Lights Installed 2008-2012



Deployment and Cost for Electric Vehicles and Batteries* 2008-2012

