



2013 Efficiency Forum - Sector Breakout I Commercial Real Estate and Hospitality

“Guiding the Way: Setting Our Focus and Sharing Success”

May 29, 2013

11:00am-12:30pm MT

14 2012-2013 Steering committee members

72 Member organizations from the CRE and hospitality sectors

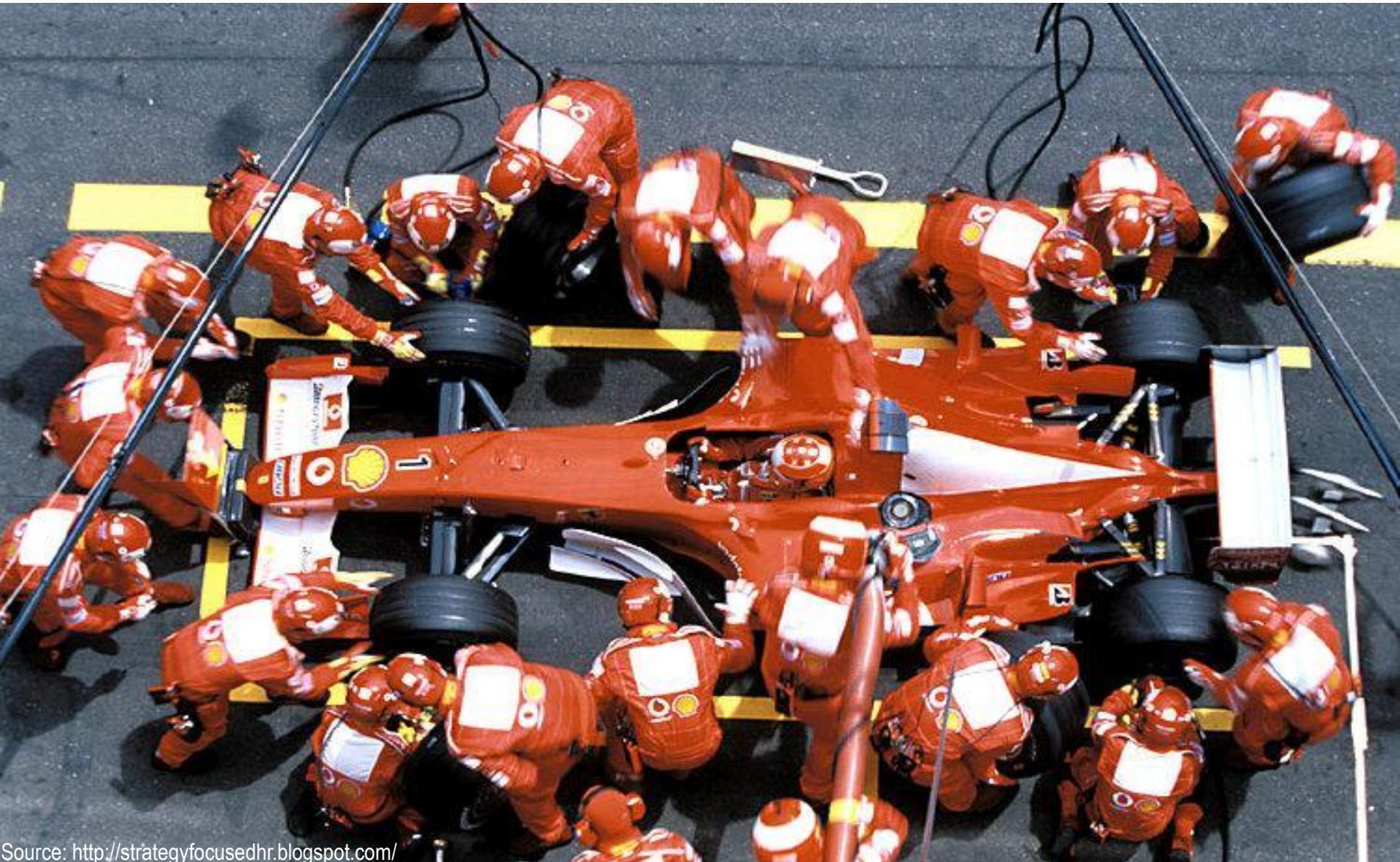
158 Individual Alliance participants

6.1+ billion Square feet of building space owned, leased and managed

14 Better Buildings Challenge partners



Welcome Commercial Real Estate and Hospitality Members



Agenda: Breakout Session I

- ❖ 11:05 Sector updates and steering committee chair address
- ❖ 11:15 Sector perspectives
- ❖ 11:25 Technology Solutions overview and updates
- ❖ 11:45 Better Buildings Challenge showcase projects panel
- ❖ 12:15 Market Solutions overview and updates
- ❖ 12:30 Adjourn

Account managers assigned to BBA sectors in order to:

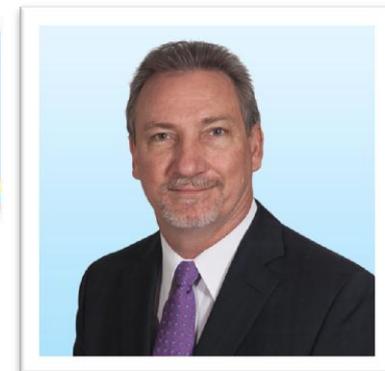
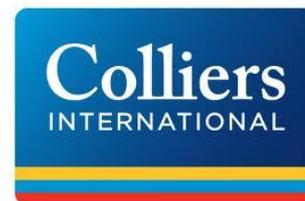
- Streamline communications for members
- Present opportunities to facilitate exchanges
- Coordinate with Better Buildings Challenge Account Managers
- Share useful events, opportunities, webinars, and trainings

Engagement established with **10** steering committee members

30+ Outreach calls held or scheduled with general members

▶ **John K. Scott**

- Senior Executive Managing Director
- *John.Scott@colliers.com*



▶ Together, we will:

- **Evaluate** the many opportunities available through the Alliance
- **Accelerate** our success
- **Define** activities for commercial real estate and hospitality that **enhance** the value for members and **maximize** impact
- **Shape the direction** of the Alliance and **transform** the market

▶ **Carlos Santamaria**



- Vice President - Engineering Services
- *Carlos.Santamaria@glenborough.com*

▶ **Chris Magee**



- Director, Sustainable Facility Development
- *CMagee@mgmresorts.com*

DOE is gauging interest in establishing a Renewables Project Team.

- ▶ Strategic use of renewables can help businesses reduce energy costs and environmental footprint
- ▶ A renewables project team can provide *unbiased advice and shared experience* to help BBA members navigate complex regulations, business models, and utility policies
- ▶ Who might be interested:
 - Anyone with large real estate holdings and/or high electricity costs
 - Businesses in areas with strong financial, utility, state, or other incentives for renewables
 - Organizations with sustainability goals
- ▶ Potential target technologies:
 - Solar PV, solar thermal systems and hybrid PV/Thermal
 - Biofuels and biogas
 - Small scale wind
 - Fuel cells?



Examples of Potential Projects

Solar Decision Guide and Support Services

- ▶ Businesses considering solar may encounter:
 - Widespread geographic differences regarding:
 - Utility Incentive structures (buy-down incentives, performance based incentives, Feed-in tariffs, etc.)
 - Utility policies (net metering, interconnection requirements)
 - Regulatory structures
 - Permitting requirements
 - Uncertainty about how to assess the different ownership structures (PPA, lease, own, etc.)
- ▶ The Solar Decision Guide and associated support services can help companies navigate this complex environment to determine if investing in solar makes financial sense and identify the regions that offer the most promising returns on solar investment.



Biogas Guide and Support Services

- ▶ Converting food waste to biogas can help supermarkets and foodservice establishments reduce energy and waste disposal costs

Before a renewables project team is established, we need to address several questions.

- ▶ Are members considering implementing renewables projects but struggling with certain issues associated with renewables? If so, what are the key concerns?
- ▶ Do members perceive significant value in establishing such a project team? Why?
- ▶ Which members would be interested in participating and/or leading such a team?
- ▶ What would be the priority issues to address?
 - Technologies: Solar PV, solar thermal systems and hybrid PV/Thermal, biofuels, other?
 - Regulatory issues
 - Utility incentives



Goals:

- Launched in 2011 with goal to make buildings 20% more efficient by 2020
- Save more than \$40 billion annually
- Create jobs in the USA

How:

- Leadership
- Results
- Transparency
- Best Practice Models
- Recognition
- Catalyzing Action



Better Buildings Challenge to date:

110+ Partners (Commercial, Industrial,
Public, Private)

2 Billion Square Feet

Nearly \$2 Billion Private Sector Financing

300 Manufacturing Plants

\$2 Billion Federal Commitment

Better Buildings Challenge

Commercial Real Estate and Hospitality Partners



▶ **Joyce Mihalik**

– Vice President of Energy Services



▶ **Nicholas Stolatis**

– Senior Director, Global Sustainability
and Enterprise Initiatives



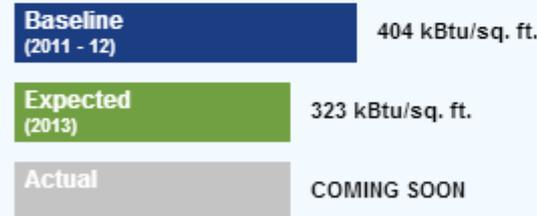


SOUTH BAY GALLERIA – ENERGY REDUCTION PROJECT

Showcase Project: Forest City Enterprises

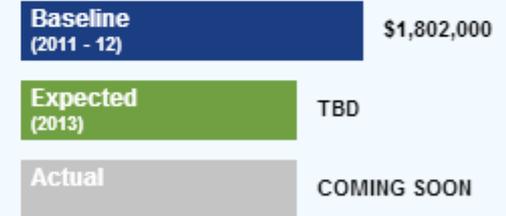
LOCATION Redondo Beach, CA	PROJECT SIZE 390,000 Square Feet
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Annual Energy Use (Source EUI)



Expected Energy Savings: **20%**

Annual Energy Cost



Expected Savings: **TBD**

Broad and aggressive program to prioritize energy efficiency measures

▶ SOLUTIONS:

- Installed variable speed centrifugal chillers
- Converted central plant from constant to variable primary flow
- Installed VFDs on all condenser water pumps and air handlers
- Conducting chilled water and condenser water resets based on outdoor air temperature
- Performing air handler static pressure resets based on load demand
- Ongoing upgrade of central plant actuators from pneumatic to DDC
- Improved energy management system

▶ OTHER BENEFITS

- Participation in Southern California Edison's Auto Demand Response program
- Determining applicability for ENERGY STAR and LEED Existing Buildings: Operations & Maintenance certifications



811 BARTON SPRINGS ROAD Showcase Project: TIAA-CREF

LOCATION
Austin, TX

PROJECT SIZE
158,000 Square Feet

FINANCIAL OVERVIEW
Project Cost \$1.01 Million

Annual Energy Use (Source EUI)

Baseline (2011-12) 217 kBtu/sq. ft.

Expected 2013 159 kBtu/sq. ft.

Actual 2013 COMING SOON

Expected Energy Savings: **27%**

Annual Energy Cost

Baseline (2011-12) \$293,000

Expected 2013 \$204,000

Actual 2013 COMING SOON

Expected Savings: **\$89,000**

An on-going effort to identify and capture no-cost/low-cost opportunities across the real estate portfolio

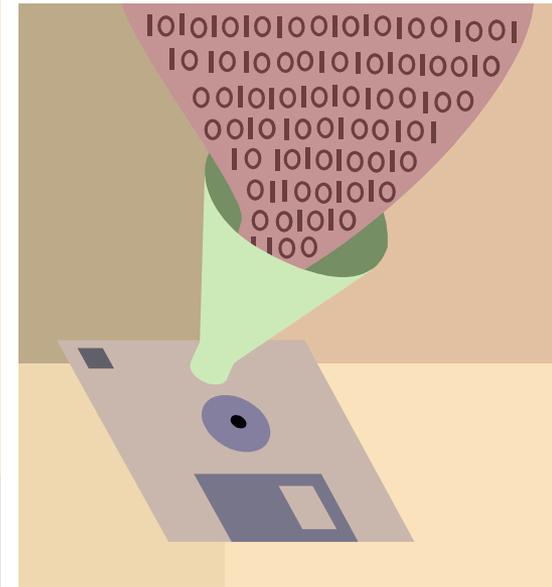
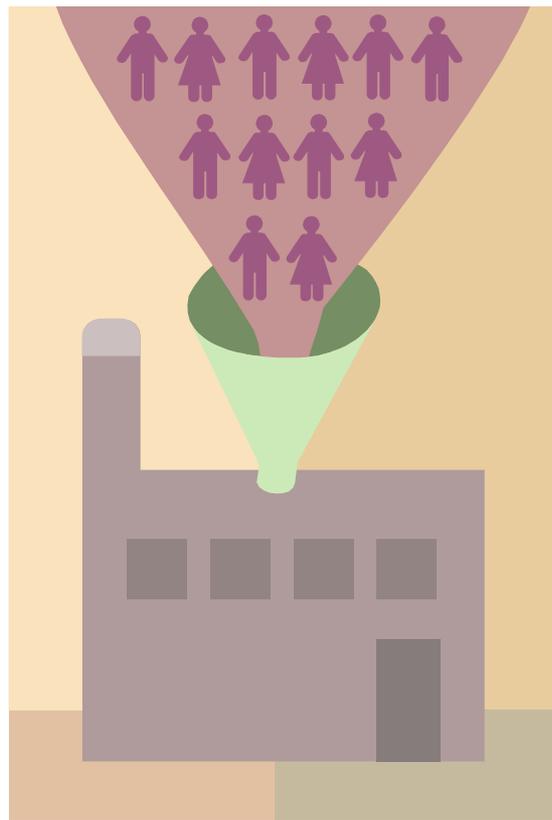
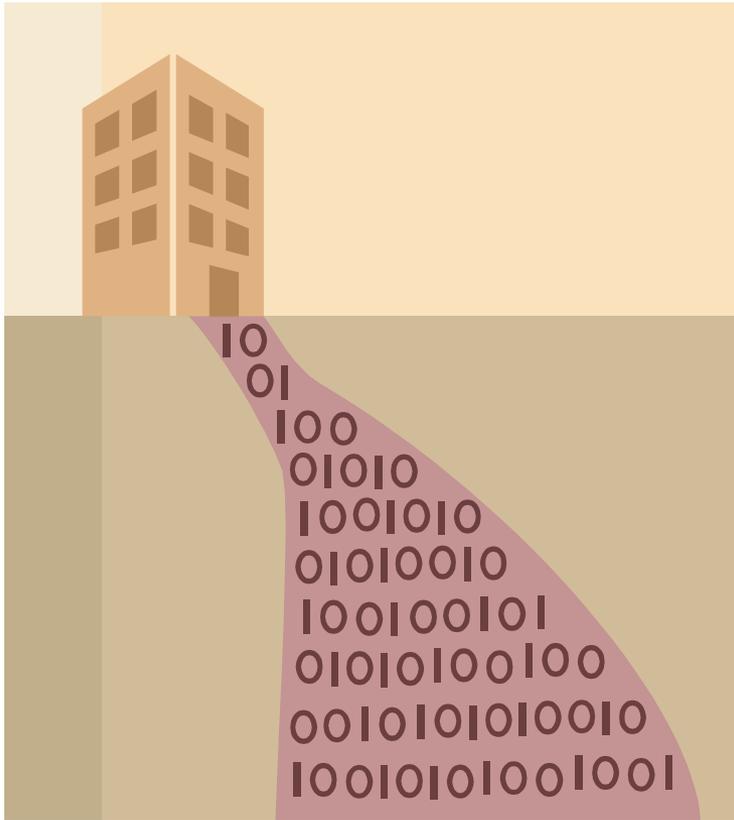
▶ SOLUTIONS:

- Reduced weekend and holiday operating hours
- Retrofitting 32W T8 and 20W MR16 lamps with 25W T8 and 2W LED lamps respectively
- Upgrading the energy management system to automate temperature set point changes
- Converting pneumatic thermostats to direct digital controls
- Chiller plant replacement to replace R-11 equipment with variable speed drive chillers utilizing 134A
- Replaced outdated “reverse roof” with added insulation and a white reflective roofing system
- Toilet and urinal replacement to ultra-low flow

▶ OTHER BENEFITS

- ENERGY STAR score increased from 92 to **98**

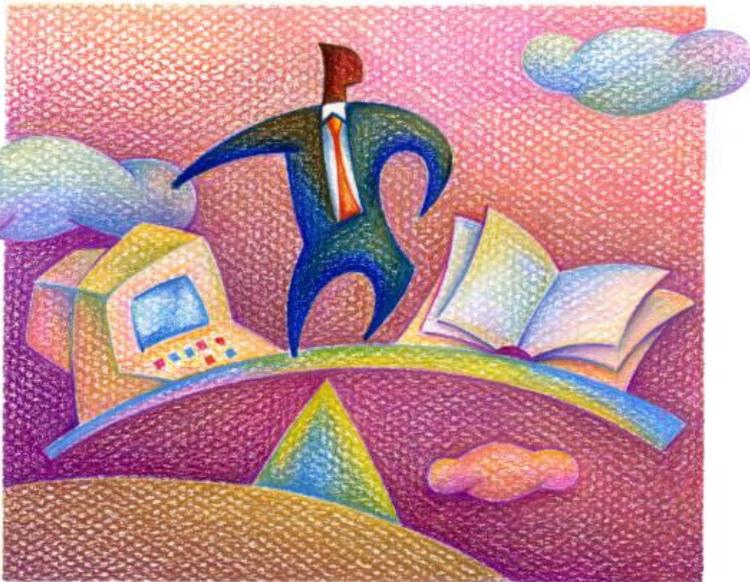
Data Access & Management



Policy Setting & Governance



Technology Selection & Deployment



Key Activity Areas

▶ Overcoming the Split Incentive

▶ Financing

▶ Training & Workforce Development

▶ Data Access and Benchmarking

▶ Appraisals and Valuation

Business Case
Development

Coordination with
Project Teams

Dissemination of
Implementation Models

How Can the CRE and Hospitality Sector Engage with the Market Solutions Team?

- ▶ Green leasing opportunities
 - Tenant-landlord green lease recognition program
 - Addressing green leasing in existing lease renewal, an implementation roadmap
- ▶ Workforce development and training opportunities
 - Enhanced usage of BAS can achieve 5 to 20% energy savings
 - PNNL building re-tuning training
 - Looking to recruit organizations for train-the-trainer sessions
- ▶ Financing Solutions Web Pages
 - Released May 2013, welcome feedback
- ▶ Data Access
 - A Utility Regulator's Guide to Data Access for Commercial Building Energy Performance
 - Analysis of energy consumption and development of new standards to overcome privacy concerns
 - Workable solutions for owners and operators to secure energy data for benchmarking

Upcoming Market Solutions Breakout Sessions at Efficiency Forum

- ▶ Wednesday, 1:30 – 2:45 PM
 - Update on “Green” and Energy-Aligned Leasing
- ▶ Wednesday, 3:00 – 4:15 PM
 - Successful Strategies for Engaging Tenants to Improve Energy Efficiency
- ▶ Thursday, 10:15 – 11:45 AM
 - Overcoming Obstacles to Data Access: Who, What, Where and How?
- ▶ Thursday, 1:15 – 2:30 PM
 - Implementation Models from DOE’s Better Buildings Challenge

And We're Off!





2013 Efficiency Forum - Sector Breakout II Commercial Real Estate and Hospitality

"The Rubber Meets the Road: Bridging Sector Focus Areas with Alliance Activities"

May 30, 2013

2:45pm-3:30pm MT

Congratulations to our 2013-2014 Steering Committee

▶ **Co-chairs:**

- Carlos Santamaria, Glenborough
- Chris Magee, MGM Resorts International

▶ **Committee:**

- Bert Etheredge, ASHRAE (Ex-Officio delegate)
- Brenna Walraven, USAA Real Estate Co.
- Bruce Rauhe, Disney
- Douglas Rath, Marriott
- Eric Duchon, Cushman & Wakefield
- John Scott, Colliers International
- Jon Flaherty, Tishman-Speyer
- Karen Penafiel, BOMA International (Ex-Officio delegate)
- Kinga Porst, GSA
- Laurie Actman, EEB Hub (Ex-Officio delegate)
- Marla Thalheimer, Liberty Property Trust
- Michael Groppi, CB Richard Ellis Group
- Noah Shales, Newmark Grubb Knight Frank Global Corporate Services
- Will Teichman, Kimco Realty

Table Top Discussion Layout



- ▶ 1. Appraisal and Valuation
 - **Theddi Wright Chappell**
 - CEO, Sustainable Values



- ▶ 4. Green Leasing
 - **Adam Sledd**
 - Program Manager, Institute for Market Transformation



- ▶ 2. Big Data and EMIS
 - **D. Magnus Cheifetz**
 - CEO, Building Energy



- ▶ 5. HVAC Opportunities
 - **Michael Deru**
 - Commercial Researcher, PhD, Manager II, NREL



- ▶ 3. Deep Energy Retrofits
 - **Elaine Gallagher Adams**
 - Senior Consultant, Rocky Mountain Institute



- ▶ 6. Lighting Opportunities
 - **Paul Wessel**
 - Executive Director, Green Parking Council

- ▶ 7. Open discussion – administrative and programmatic

Start Your Engines



A Special Thanks to our Expert Facilitators



▶ Theddi Wright Chappell

Sustainable Values



▶ Adam Sledd



▶ D. Magnus Cheifetz



▶ Michael Deru



▶ Elaine Gallagher Adams



▶ Paul Wessel

