



The Energy Engineers group of the Michigan chapter of APPA (MiAPPA-EE) was founded approximately five years ago. Our intention was to create a way to effectively share information about what each of our schools were doing for energy conservation.

The EE group, since its inception, has grown to 36 colleges and universities (14 public universities, 10 private colleges and universities, and 12 community colleges), with over 60 individuals that represent these schools at biannual meetings. Interestingly, many of the individual members are not energy engineers. Several are facility directors, energy managers, or architects like myself—but in our work, we all share a focus on energy conservation.

MIAPPA DATA COLLECTION AND SHARING

Information-sharing drives MiAPPA-EE's efforts, and we have developed several ways to communicate with each other. We have a shared member contact list, a listserv for email discussions, and what we call our Energy Conservation Measures (ECM) Activity Chart. This consists of a spreadsheet that lists school names along one side and a large number of possible ECMs listed along the other.

ECMs range from occupancy sensors in classrooms, variable frequency drives (VFDs), and LEDs in parking lots to solar photovoltaics and geothermal heat pumps. We now have more than 81 project types on the list. Numbers in the chart's cells indicate which schools are undertaking each ECM and roughly how much experience they have with it. The ECM Chart is hosted by the University of Michigan in a Google Doc format, and Washtenaw Community College hosts the listserv for our group.

This level of sharing, combined with two day-long meetings for our entire group per year, boosted energy conservation efforts for many of our members. However, we wanted to dig in deeper and become more quantitative. We wanted to better understand the impact of each ECM, tracking how much it cost and how much it saved. A few years ago we formed an ad hoc committee to come up with a system we could all agree upon to calculate return-on-investment (ROI), payback period, energy savings, and carbon savings. After several discussions, without identifying any tools that could meet our needs, our search was put on hold.

WORKING WITH GRITS

In the spring of 2014, our quest for quantitative information picked up again when we learned about GRITS. Developed by the nonprofit Sustainable Endowments Institute (SEI), GRITS (short for the Green Revolving Investment Tracking System) is a web-based platform that tracks investments in energy efficiency and other resource conservation projects and enables data-sharing through a project library. We contacted SEI and, after several discussions between our organization and SEI, MiAPPA-EE adopted the platform.

For three years now, GRITS has allowed our members to maintain an ongoing calculation of the energy, financial, and carbon emissions savings from our projects and easily share that data with one another. GRITS also allows us to develop excellent charts and presentations with little work. Many of our members have also included many projects from prior years into their GRITS portfolios.

Because the GRITS program has so much information in one place and is so intuitive, it can be readily used by each organization's administrators and faculty as well as the facility staff. In many ways, it can speak to everyone on campus that has a stake in resource conservation.

OVERVIEW TO GRANULARITY

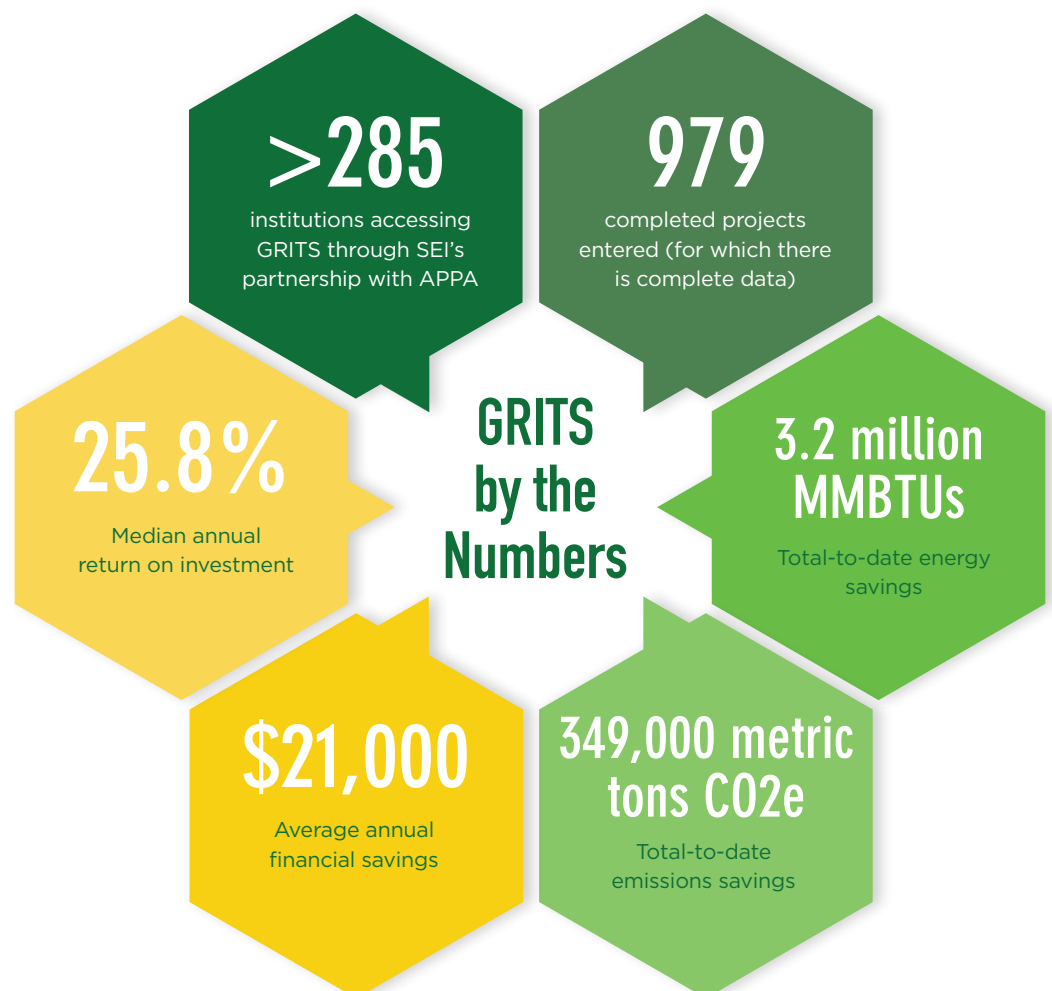
One of the best thing that GRITS does, in my mind, is describe and track energy conservation projects at a granular level. It will tell you whether the project is electrical or HVAC, whether it is a VAV project or a VRF project, LED or fluorescent

lighting, etc. Your project can be labeled as one of 14 different types and one of over 120 different sub-types of ECMs. The fuel type, cost of the project, the payback and carbon savings, what building it is in, the age and use of the building, are all tags that help describe and identify your project. You are able to sort your organization's energy project history by building, type of project, or type of fuel.

The GRITS library features more than 2,000 completed projects (from all sectors) and continues to expand rapidly. This sort of information gives us a database that can be mined to give direction and confidence to engineers, owners, and investors. Data from the library provides a list of priority projects with estimated costs and paybacks for almost any type of ECM project we wish to pursue.

THE GRITS PARTNERSHIP

The partnership we formed with SEI reduced the price of access to GRITS as more of our members joined. MiAPPA's pooled funds have paid the cost of our members' subscriptions to GRITS over both of the past two years. Fifteen MiAPPA-EE



—Aaron Karp, Sustainable Endowments Institute

member institutions began using GRITS in our first year. In our second year, 25 of our 36 schools are now using the platform.

Based on our experience and success, we pushed for the use of GRITS across APPA. In particular, we emphasized the value of building a huge database of viewable project data. Following several discussions with APPA's leadership, a new partnership was formed in late 2015 that provided APPA members with basic access to GRITS for free. In late 2016, nearly 300 APPA-member institutions have signed up to use the platform, and the data in the library has continued to grow.

It is my hope that not only will all colleges and universities in APPA use GRITS, but that K-12 schools, also in need of support for their resource conservation projects, begin to use it as well. Because private engineering firms are so often relied upon to implement these projects at both K-12 schools and higher education organizations, we're beginning to reach out to these firms in Michigan and ask them to use GRITS to track and share this data.



CONCLUSION

If colleges and universities across North America want to help lead the way to energy savings and environmental sustainability for others, we need to build the road map for them to follow. An engineering professor whose class I took years ago used to tell me, "If you can't put numbers to it, you don't know what you are talking about."

It follows that if we don't give others detailed and quantified information about the resource conservation work we are doing, they won't know what we are talking about either. Using GRITS is one good way to help us reach the goal of creating

a way forward for all of us.

APPA member institutions can sign up for free access to GRITS by visiting www.appa.org/grits.cfm. §

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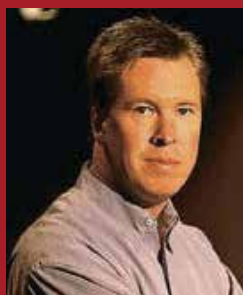
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APPA/PCAPPA/BayAPPA 2017 is the platform for discussion, information sharing, networking, and much more! Join us for this distinctive international event where we discover best practices used around the world. More than 100 presenters, will include the professions' most recognized and talented educational facilities leaders representing facilities officers, directors, and managers throughout the United States, Canada, Mexico, and the world! On July 21-23 in San Francisco, CA, we will convene, identify, and discuss the most current and pressing challenges facing educational facilities, and determine our common path forward.

Opening Keynote Speaker

John Jenson - The Clarity Imperative



APPA/PCAPPA/BayAPPA are pleased to announce our opening keynote speaker, John Jenson, who will kick off three days of innovative programming this July in one of CNN's highest rated innovative cities—San Francisco, CA!

What makes a team, department, or organization stand out? Typically, it's things like clarity of purpose, a strong culture, and alignment around where the group is headed. As John Jenson points out, it's not about creating a mission statement or slogan, it's about getting real with who you are, identifying

the meaning in what you do, and ensuring that you can bring your strengths and values to bear in every situation.

John A. Jenson is an expert on how to present yourself and represent your organization at the highest possible level. He has helped thousands of professionals and has written five books on the subjects of change, perspective, and influence. John provides insight from his own experiences to show the importance of "consistent messaging." He emphasizes that organizations, such as past clients Target Corporation, Hunter Douglas, Verizon Wireless, Johns Manville, and Qwest Communications to name a few, prosper when there is a consistent understanding of "what we do," "our culture," and "our direction." John hones in on everyone's own purpose and meaning to the organization to highlight their strengths to bring out the best in them.

Innovative & Top Notch Breakout Programming

APPA/PCAPPA/BayAPPA 2017 had a record response to our call for programs. Here is just a sampling of what you will have to pick from July 21-23!

Remaking the Facilities Organization

- Big Data's Big Impact on Facilities Operations and Organizations
- Hiring to Transform Your Organization
- The Hidden Power of Lean

Future of Built Environment

- Creating a Dynamic Capital Construction Plan
- Owning It All
- University Renovation Exceeds Savings Expectations

Preventive Maintenance for People

- Branching Out—Growing Employee Talent
- Empowering Employees Through a Technology Transition
- Pipeline to Staff Engagement

Space: The Ever Changing Frontier

- A Return to the Sandbox
- Road to a Sustainable Energy Supply
- Removing Academic Learning Silos

Innovations & Technology

- Components of an Intelligent Campus
- Driving Operational Intelligence with Data
- Technology: What Is Next and Are You Ready for It?

Visit www.appa.org today to register!

PLUS BONUS PROGRAMMING

Our Emerging Professionals Summit (EP Summit) and Senior Facilities Officers Summit (SFO Summit)

As APPA continues to ensure the strength of our organizations' future, we bring together our future and our legacy through the unique formatting of the EP Summit and SFO Summit. Programming this year for these distinct constituency groups will deliver message specific to their needs as professionals, while offering critical topics for *cross-over* learning, as well.

Emerging Professionals Summit (EP Summit) programming will touch on such topics as:

An 'Outward Mindset' Organization - Incorporating research by the well-known Arbinger Institute and APPA's Thought Leaders outcomes, participants will develop best practices on supporting the academic community enhancing the cross-campus relationships and improving departmental motivation.

Diversity and Inclusivity - Participants will establish and discuss the differences of these realities. Develop best practices to utilize them in a proactive manner and see what can be done to create an inclusive work environment.

Senior Facilities Officers Summit (SFO Summit) & Emerging Professionals Summit (EP Summit) colleagues will explore 'cross-over' content such as:

BE YOUR BEST - Our health and continued personal growth is critical to a strong team. If you are not at your best, how can you be your best for your colleagues? Participants will access tools and discuss how to utilize to set a personal and professional intention.

We are your LEGACY - Change is constant and a moving target like none other. Emerging Professionals Summit participants will develop for discussion innovative ideas about a new organizational structure for open discussion with the Senior Facilities Officers Summit participants. Establishment of true take-aways on how facilities management can best support the transitional success.

Seats are limited for both these pre-conference sessions that will be held July 20, 2017 from 8am - 5pm, and we encourage you to register early. As a reminder, your registration for either summit will also provide you full access to the APPA/PCAPPA/BayAPPA 2017 Annual Meeting and Exposition.

**A special thanks to CLUB CAR as the
2017 Senior Facilities Officers Summit sponsor!**



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APPA's HALL OF RESOURCES

The APPA/PCAPPA/BayAPPA 2017 Annual Meeting & Exhibition will be held in San Francisco, California, with our hall of resources activities taking place at the Hilton San Francisco Union Square. It's a perfect location for programming, exhibiting, and networking with colleagues while reminiscing with old friends.

APPA/PCAPPA/BayAPPA's 2017 annual meeting and exhibition will be a fantastic event full of networking—this is where you need to be!

Research has shown that nothing compares to exhibiting at a conference where you will have the ability to meet many potential clients face-to-face. Studies have shown that exhibiting at conferences and meeting with attendees is one of the most effective ways to acquire new clients.

The APPA/PCAPPA/BayAPPA annual meeting attracts top decision makers in the facilities arena. If you want to do business on a college campus, your product or service should be in front of our attendees.



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| ■ APPA's Committee Breakfast | ■ APPA's Executive Committee Reception & Dinner |
| ■ Banquet Wine | ■ Closing Breakfast |
| ■ Daily AV Supporter | ■ Governance Breakfast |
| ■ International/VIP Reception | |

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| ■ APPA's Bookstore | ■ APPA's Resource Center |
| ■ Conference Badge Holders | ■ Conference WiFi |
| ■ Emerging Professionals (EP) Summit | ■ Exhibit Hall Lunches |
| ■ Invited Guest Speakers | ■ Portfolios w/Pens |
| ■ Opening Breakfast | |

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| ■ APPA's Banquet & Awards | ■ APPA's Board of Directors Reception & Dinner |
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