

Getting To Zero, Season 2

AIA SEATTLE | OCTOBER 2, OCTOBER 23, NOVEMBER 13, DECEMBER 4 | CASCADE ROOM, HAGGETT HALL | 1400 15TH AVENUE

** all sessions/speakers subject to change*

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PROGRAM: FRIDAY, OCTOBER 2, 2015

Session 1: *Preparing For Net Zero*

8.00-8.30 am **REGISTRATION** and Continental breakfast

8.30-9.00 **WELCOME + INTRODUCTIONS**

AV Goodsell, MPS | Program Manager at AIA Seattle

2015 Getting to Zero Planning Task Force

- **Andrew Lee**, LEED AP BD+C
- **David Mead** | Building Performance Specialist, Associate at PAE Engineers
- **Duane Jonlin, AIA** | Energy Code and Energy Conservation Advisor at the City of Seattle's Department of Planning and Development
- **Duncan Griffin, AIA**, LEED AP | Principal at NBBJ
- **Michael Fiegenschuh, AIA**, LEED AP BD+C | Senior Associate at Mithun
- **Stephanie Pitts** | Marketing Communications Manager at McKinstry

9.15-10.30 **WHERE ARE WE NOW? WHERE ARE WE HEADED? HOW FAR AND HOW FAST?**

Brad Liljequist | Technical Director, Living Building Challenge at International Living Future Institute

10.30-10.45 BREAK

10.45-12.30 **NEW, EXISTING, MAJOR, MINOR BUILDINGS AND IMPACTS ON THE COMMUNITY**

Mark Frankel AIA | Technical Director at New Buildings Institute

PROGRAM: FRIDAY, OCTOBER 23, 2015

Session 2: *Design For Net Zero*

8.00-8.30 am **REGISTRATION** and Continental breakfast

8.30-8.35 **WELCOME + INTRODUCTIONS**

AV Goodsell, MPS | Program Manager at AIA Seattle

2015 Getting to Zero Planning Task Force

8.35-10.30 **WHAT'S IN OUR TOOLKIT?**

Michael Hatten, PE | Principal at SOLARC

Duncan Griffin, AIA, LEED AP | Principal at NBBJ

In order to achieve net-zero outcomes, essential changes need to be made to more traditional modes of architect led design processes. These changes are needed to integrate a greater number of influencers into the process, who, through collaboration, can achieve the extraordinary efficiencies required by net zero buildings. As luck would have it, these changes have been under way for some time in the use of BIM and

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sub-contractor integration. The next steps is to integrate high-performance outcomes into the goals of this approach. As part of this, an increased understanding of the role that the building skin plays in energy consumption is required, as well as a willingness on the part of the engineering and construction team to account for and hold to these factors.

The Relationship between Building Skins and High Performance Systems [Duncan Griffin]

Building conditioning systems in common use over the last 40 years have been based on the assumption that little will be done to limit the solar energy at the building skin, and that energy is cheap. When net zero energy is the goal, the relationship between the architectural skin and comfort delivery systems becomes critical. This presentation will lay out the relationships between these systems to enable the radical reduction of energy use.

Tools and Data: Integrated Design for Net Zero Energy Performance [Mike Hatten]

The integrated design process to achieve net zero energy performance requires performance testing to be incorporated into the design process. Performance testing needs are often unique to a particular project and can be supported by many different tools and resources. This presentation reviews numerous specific tools and resources that can be used from climate analysis to loads modeling to natural ventilation simulation.

10.30-10.45 BREAK

10.45-11.30 PANEL DISCUSSION: GOING BEYOND ENERGY AND THE INDIVIDUAL

Moderator Tom Marseille, Hon AIA, PE, LEED AP BD+C | Senior Vice President at WSP
Christie Baumel | Policy Advisor at the City of Seattle, Office of Sustainability & Environment, Green Building & Resource Conservation
Jeff Sloan, PE | Design Manager at McKinstry Engineering & Construction Co.

11.30-12.30 CASE STUDY: ROCKY MOUNTAIN INSTITUTE INNOVATION CENTER

Marc Brune, PE, LEED AP | Senior Associate at PAE Consulting Engineers
Karina Hershberg, PE | Electrical Engineer at PAE Consulting Engineers

Rocky Mountain Institute Innovation Center

If every commercial building in the United States was as energy efficient as the new Rocky Mountain Institute Innovation Center aspires to be, there would be enough savings in one month to power New York City for a whole year. In this presentation, PAE will share this project's ambitious sustainability goals and the strategies being implemented to achieve them. This includes concepts for reducing heating and cooling loads in one of the most difficult climates in the U.S., and a new way to think about thermal comfort in buildings. PAE will discuss the Center's unique onsite battery storage, which serves not only as a functional energy source, but also as a test bed for grid interaction with distributed storage. Further, PAE will delve into project's investigation of DC electrical design, and why the team made the difficult decision not to include it in the building.

PROGRAM: FRIDAY, NOVEMBER 13, 2015

Session 3: Operations for Net Zero

8.00-8.30 am **REGISTRATION** and Continental breakfast

8.30-8.35 **WELCOME + INTRODUCTIONS**

AV Goodsell, MPS | Program Manager, AIA Seattle

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8.35-9.30

THE HANDOFF, PART 1

Tom Marseille, Hon AIA, PE, LEED AP BD+C | Senior Vice President at WSP
Members from the Stone34 project team, including from McKinstry and Skanska

9.30-10.30

THE HANDOFF, PART 2

Justin Stenkamp, PE, LEED AP | Associate at Mechanical Engineer at PAE Consulting Engineers
Christopher Meek, AIA | Director at University of Washington's Integrated Design Lab at the Bullitt Center
Heather Burpee | Research Assistant Director and Health Design Specialist at University of Washington's Integrated Design Lab at the Bullitt Center

Results from a Living Building: The Bullitt Center Turns Two

Certified in early 2015 as the world's largest commercial Living Building, The Bullitt Center is much like a Douglas fir forest – utilizing only nature's abundance to provide fresh air, light, energy, and heating and cooling for its occupants. Located in Seattle's Capitol Hill neighborhood, the Bullitt Center is a six-story, leasable commercial office building. As the project turns two years old, the Bullitt Center is serving as living proof that self-sustaining, net positive buildings are a realistic option and can be financially achievable, comfortable for tenants and a beautiful addition to the community. By sharing lessons learned from the project, thermal comfort data, occupant experience antidotes and real-time energy and water use/production information via the Bullitt Foundation's online dashboard, PAE hopes to educate and inspire owners and future design teams to create projects that exceed the Bullitt Center's performance.

10.30-10.45

BREAK

10.45-11.30

WHAT'S NEEDED FOR OPERATIONS

Matthew Combe | Program and Operations Director at Seattle 2030 District

11.30-12.30

WRAP-UP AND NEXT STEPS FOR OPERATIONS FOR NET ZERO

Guy Dauncey | Founder and Communications Director of the BC Sustainable Energy Association

PROGRAM: FRIDAY, DECEMBER 4, 2015

Session 4: Financing & Regulations for Net Zero

8.00-8.30 am

REGISTRATION and Continental breakfast

8.30-8.35

WELCOME + INTRODUCTIONS

AV Goodsell, MPS | Program Manager, AIA Seattle
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8.35-9.30

CODES, COMMUNITY IMPACT, AND SETTING A NEW STANDARD

WHAT ABOUT THE MONEY? AND REGULATIONS!?

Duane Jonlin, AIA | Energy Code and Energy Conservation Advisor with the City of Seattle Department of Planning and Development

Getting our new buildings to operate purely on energy generated from sun, wind and falling water is an exceptionally ambitious goal, but how many buildings will get there voluntarily? Codes and regulations, in concert with technical and financing support, are likely to be necessary, and even that will be just the

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tip of the iceberg. To reach Seattle's 2050 goal of carbon-neutral buildings and vehicles with a much larger population, we will need to dramatically reduce the energy use of our existing building stock, rapidly wean ourselves from fossil fuels, and start exchanging excess heat energy and solar power within the community. Apart from a motivated minority, the design, development and construction stakeholders are highly resistant to change and to new regulations. However, the economic consequences for the larger community (including those stakeholders) are enticing if we largely eliminate the outflow of cash for fuel, using that money instead for the local wages and profits generated by construction and maintenance of a zero-carbon Seattle.

9.30-11.15

BUSINESS CASE PANEL DISCUSSION

Dan Clarkson | Director at the Energy Efficiency Finance Corporation

Perry England | Vice President of Building Performance at MacDonald-Miller

George Pondorff

Craig Smith | Conservation Resources Director at Seattle City Light

Chris Angus | Director of Preconstruction Services at Sellen Construction

11.15-11.30

BREAK

11.30-12.30

VALUE

Julia Raish, | Manager at Paladino and Company

12:30 -2.00

SPECIAL CLOSING LUNCH with all speakers and attendees and our sponsors