

Meeting of the Board of Directors

ACEEE - 529 14th St NW, Washington, DC 20045 April 25th - 26th, 2017

Meeting Notes

NBI Board of Directors Meeting Tuesday, April 25, 2017

Attendance:

In-Person

- David Goldstein
- Michael McAteer
- Doug Baston
- Ed McGlynn
- Peter Turnbull
- Steve Nadel
- Brendan Owens
- Marge Anderson
- George Malek (arrival at 10:10 am)
- Mark McCracken (arrival in person at 2:10 pm)

On phone:

Nancy Jenkins-Ander (on phone)

- Jeff Harris (on phone)
- Jim Edelson (on phone)
- Mark MacCracken (on phone arrival after lunch)

Staff:

In Person:

- Ralph DiNola
- Amy Cortese

On phone:

- Cathy Higgins (periodically)
- Stacey Hobart (periodically)
- Mark Frankel (periodically)
- Jim Edelson (periodically)
- Eric Bruckbauer (periodically)

Welcome and Call to Order at 9:05

Approval of the Minutes

- Ed noted a few typos in the minutes:
 - Page 1 Change date of to 2016
 - Page 2 second day should be Dec 8th
 - Page 2 Vicky is Kuo at ConEd
- Ed motion to approve; Steve second; unanimous consent

ACTIION ITEM: Post final December Meeting Minutes

State of Play

- (Ralph reviewed the bullets on his slides and the December Board Meeting Notes)
- Energy efficiency is still the primary approach to our work and communications. Carbon emissions reductions are a related benefit of EE
 - Energy and carbon are two sides of the same coin; energy is convenient proxy for many other things; energy conservation is not the outcome, but the enabling mechanism to execute strategies, EE is enabler allows us to be able to project outcomes to deliver these other benefits
- CA will not actually get to res ZNE goal; problem is with the TDV metric;
 - How do EVs and solar storage integrate into the numbers regarding TDV; don't want people to charge their cars at peak times from 6-10 pm
- Issue of energy cost not tracking with emissions

- CA, state-wide carbon goal cannot be met in 2015 if you use gas, even with 50% savings retrofits; costeffective by definition because otherwise cannot achieve CA goals
- Way an individual ZNE building accounts for energy may exacerbate duck curve
- Assumption on some metrics is that renewables and EE are interchangeable; but this is not true in the
 code context; limit tradeoffs between EE and renewables; must meet minimum EE standards before
 you can incorporate renewables; this is why grid optimal metric is important
- Energy versus carbon; make sure that we keep in mind the other benefits; need to listen better to diverse voices; cost part of the equation; other benefits besides carbon;
- EV to take advantage at excess solar; 6,000 chargers at state facilities over 5 years in planning; problem to see this as a way to use excess solar; no storage so excess leaks to grid; NBI could play a bigger role on *integration* (building, renewables, grid, storage)
- EUI for existing buildings based on top quartile as baseline for their state buildings 2025 goal; trying to figure out the target metric; how do operationalize this?
- Building owners don't really pay attention to Washington; seeing EE sacrificed for PV; code
 enforcement is a joke; interested in what NBI can do in this regard; PM and Facilities managers are the
 audience; trying to get younger and more diverse voices heard; need more pragmatic examples IN
 THE MIDWEST; show us the details; advice for NBI is to just do it!
- Need "practical buildings that work and save energy"; future is so uncertain; afraid of being too far ahead; give them a 90% building and call it a day;
- "energy waste reduction" (not even EE anymore)
- Undermine argument by using the Bullitt Center; too many people needed to be involved to make that a reality; aspirational. Coastal examples do not work in mid-west; must pay for future projects with savings from past projects; must drive revenue not savings. "anti" Bullitt Center Stockton, CA house that was built to zero with a negative incremental cost 2x6 with 3/4 ton heat pump; framing factor is 0.13 rather than 0.25; same with sheet rock;
- R&D that will be in demand just because the baselines for EE programs are improving so much; as
 they look for measures, they don't see real potential; how will they invest at the levels that they
 committed; looking for investment structures how to ensure that they produce results from it.
- IMT code change to allow HERS scores with 3rd party check without involvement of building department; may be a similar space available in commercial sector;

20th Anniversary (Stacey)

- December 18, 1997 anniversary date but work will happen over the course of the year
- Opportunity to describe NBI's impact; honor people, programs and partnerships; increase visibility of NBI
- Looking forward highlight strategic plan
- Special 20th anniversary branding on logo
- Events Opening event in Portland in summer; closing event at Forum in Spring
- Communications 6-7 blog/stories to serve as an overarching retrospective;
- Marge October is EE month might ride that wave;
- Ralph interviews with board using camera and/or phone; especially want to highlight founders to tell stories; add people's reflections of NBI in communications survey scheduled for oct/nov
- Stacey uses VIMEO rather than youtube channel; ask board members to author and/or co-author blogs; social media is part of this but not exclusive avenue; may be some trade publication placements;
- Michael get testimonials from utility customers may be more compelling than board members; get feedback from branded people
- Marge wavemaker video if Ralph comes to NE
- Steve retrospective should be looking back AND forward
- Doug NBI at heart of transitioning code
- Steve dinner in Boston at ASHRAE 189 meeting the idea of NBI came up because ASHRAE just
 wasn't going to get there; Doug Mahone came up with the idea; create destructive competition for
 codes (though we didn't want to admit it)

- Marge follow on story is that what NBI says ends up coming true. Codes were a dream but are now coming true; net zero is coming true now;
- David PNNL graph of code improvements linked to NBI's timeline
- Ralph needs someone outside to highlight NBI's connection to the real impact of our work; hard to connect NBI's work to real impact in the market;
- Marge GT50 summit was wild at the time
- Ralph NBI speaks the future
- Jeff interview Doug Mahone who can give a retrospective and fairly objectively assess what has happened; no one from ASHRAE will ever admit that NBI had an influence; AB then AEDG; Jean Luppenaci from DOE
- Michael what about RMI looking forward
- Jeff critical component to the evolution of NBI PIER grant strength was to take the research and translate it into market usable material; unique role of the practical linkage between new ideas/tech/practices and market readiness; understanding the non-energy impacts of advanced practices (in particular, daylighting); EE enables NEBs which are very large to the value;
- David dialogue up to then was that one barrier to EE was not messing with the productivity of the work;
- Nancy rigorous approach to valuing NEBs happened after PIER research.
- Michael NBI is about promoting better performing buildings
- Ralph point the influence of PIER daylighting study and impact in the community
- John Wilson was at the CEC at the time; Nancy could provide context as she was manager of the program at that time.
- Doug AB program which was Jeff's idea attempt to go beyond prescriptive measures and create comprehensive program;
- Jeff E Benchmark imitation is flattery
- Ralph what about the connection between USGBC and NBI? not much;
- Michael confluence of Savings by Design; AB; Integrated Design; USGBC;
- Stacey stretch codes as something that NBI "owns" but Steve says that NEEP did a lot of work on that - not necessarily transformational
- Jeff might add research building performance for business use of the building (Lisa H)

CEO Report

- Elevator pitch
 - Michael replace thought leadership with innovation
 - NBI makes buildings more efficient. We shape the future with innovation, research, design guidance, and advanced building energy policy.
- We have also been working on the NBI Strategic Plan
 - Three Programs each with their own vision, overarching strategy; plus individual strategies with goals and KPIs
 - Three Strategic Markets with their own vision, tactics, goals and KPIs
- Overarching Fundraising and Financial Updates coming later in the day
 - Joyce Foundation waiting to hear
 - SMUD- grid optimal and maybe DGS work
 - SDG&E Chip Fox replacement is still unknown; lots of turnover there but Lisa Davidson might be a good contact there – she is an overall in charge of EE
 - San Diego County might be another opportunity to reconnect with SDG&E
- Prospectus:
 - Deep Energy Retrofit Primer for Decision Makers Existing Buildings coordination with Annex 61 (international association); content has been peer reviewed; given to NBI who will give it an additional review; copy edit and layout required; content is already there;
 - Fundraising strategy go to product manufacturers
 - Guides how do we get these to market? Part of utility program? Discussion to follow during strategic planning discussion; hard copies are unlikely; pdf online is likely;

- How will it be used depends on the program implementers and what they need!
- How to guide less valuable than a tool
- Brandon investor confidence project; financial play; challenge of ESCO community to create business plans that are digestible from a risk perspective for lending agencies; IPMVP to verify savings will materialize; capital to execute projects (and blends of projects) has been challenged; ICP develop protocol around independent third party review of projections -costs and savings]
- Business case guide is one of the primers –
- ICP may be a partner certify that ECM package is in fact a solid investment
- George struggles because how do we know if there is a need; what is the gap, what is the need? Generality of addressing decision-makers could make the product not really serve anyone (i.e. healthcare decision-makers different than other decision-makers); needs to be tailored to the audience must have verticals to address a particular market by speaking their language! Blend energy saving and NEB;
- Ralph this guide could go the way of AB; but one-time opportunity; once we have it we can determine the need? What about ZNE school retrofit? Commercial office retrofit?
- Doug DORCE(?) metric melds cost effectiveness and comprehensiveness; most effective programs were the verticals; casino, lodging, furniture store; in some financing makes a difference and in some it does not
- Ralph NBI has made agreement with Annex 61 to publish these 5 guides as is; maybe briefs after that by vertical; these volumes may be a treasure trove of information
- David maybe NASEO as a partner?
- Grid Optimal, etc.
- NBI Resource Directory
 - Comprehensive knowledge management approach; Organizes over 350 resources (public and private) all indexed and keyworded for easy search and research; expansion of ZNE policy library; cleans up on internal server and
- NBI Projects
 - GTZ Leadership
 - CPUC ZNE Action Plan workshops, partnership with jurisdictions
 - Prop 39 school trainings, case studies, recognition
 - GTZ National Forum April 2018 searching for location now (need examples of ZNE)
 - Pittsburgh Carnegie Mellon University Vivian Loftness
 - Santa Monica ZNE Guide for Residential New Construction
 - Building Innovation
 - Multifamily New Construction Guide
 - Energy Star Multifamily Standard (measures, savings, costs available)
 - Budget cuts likely but shutting down ES is unlikely; maintaining core and innovative new things unlikely under this administration
 - DOE Municipal Building Leadership and Portfolio Prioritization
 - Approach could be helpful for use in muni buildings (and schools) to fill pipelines in utility programs
 - NBI experience in Boise, Tacoma, Missoula, Eugene, Providence, Cambridge, Eastern Washington School Districts, etc.
 - Idaho facility managers constantly tackling EE retrofits now that they have information
 - Cambridge policy gap analysis to follow
 - National Grid webinar series
 - Policy Innovation
 - NYSERDA Stretch Code
- NBI selected as top non-profit in Oregon and top green non profit

- Staff reviews coming up in May includes compensation review
- NBI Culture Club internal team to coordinate staff activities
 - The board congratulated Ralph at doing a great job of making NBI a viable and thriving organization!

NBI Strategic Framework & Generative Discussion

- Brief review of previous strategic plans, focus and priorities
- 2018 Strategic Plan Framework
 - Three programs each with their own vision and program strategy
 - Getting to Zero Leadership and Market Development
 - Building Innovation
 - Code and Policy Innovation
- Comments on Programs
 - Ralph dates still need alignment between program vision and strategies
 - Doug ZE in existing buildings? What about deep energy retrofits?
 - Not really a national ZNE play, just in CA; rather see another leg to stand on elsewhere in the country where ZNE doesn't have a leg to stand on.
 - David don't have to get to ZNE in retrofit in one pass; trajectory shown is the A2030 trajectory (2 degrees) but we really need to get to 1.5 degrees which means 50% savings retrofits by 2030 for the first past; since emissions are cumulative need savings early fast is more important than deep
 - Steve different perspective; need to be aggressive but realistic WRT existing buildings; deep retrofits (means close to 3% per year where 1% per year is pretty aggressive now)
 - David Trade-off between realistic and credible and where do we want to be.
 - Steve says that this will be required to look elsewhere than buildings
 - Steve let's do ZNE in NC now AND let's work on the retrofits
 - Peter need to divorce EE from the renewable; verifiable transaction for renewables off site to address buildings that can't get to ZNE
- Three Strategic Markets pull elements from all three program areas; represent a particular market engagement approach
 - o K-12 Schools
 - Advanced Jurisdictions
 - Utilities
 - Michael says sponsorship model at risk; NBI should become more of a consultant model and mindset; reinvent relationship with utilities (more deliverable approach); add consulting in the market place not just with the utilities;
 - Ralph NBI will not do commodity level consulting; design professional services is a whole other level
- · Ralph introduces the diagram
 - Jeff is digesting it; seems to make sense; like the idea of the three leadershiop areas and strategic markets; utilities are not typically considered a vertical; ZNE is about new buildings and existing buildings;
 - Michael more balanced than only on ZNE
 - Brandon at some point all three programs need to come together; show more overlap; Ralph should focus his work on this intersection of the three programs – spend more time on this "thought exercise"
 - Jeff to increase the shelf life K-12 schools is an early market for ZNE; may want to consider other market segments now; don't limit yourself to schools right now; big impact for ZNE is not schools, but not where you want to stop; look at more energy intensive buildings; maybe generically talk about vertical markets
 - David- maybe add a "new strategic opportunities" circle; Utilities; private and public sector
 - Peter need circle showing "people who make money on buildings"
 - o Steve do we include something about 'sector leaders'

- Ralph building professionals was another potential strategic market but they don't have money either.
- NBI tool evaluation
 - FirstView, consultative service or market pathway?
 - Doug what happened with Equilibrium? They are looking for a host for the Delta meter. Metered Energy Efficiency Transaction Structure (MEETS)
 - Michael MEETS is complicated; getting investor to put up the money is a challenge to predict the savings; risk still exists
 - Jeff MEETS / pay for performance doesn't have to involve the third party investor; utilities could be the investor and take on the risk;
 - Advanced Buildings
 - Steve no tier for AB to get to ZNE
 - Ralph some markets could use but ZNE schools is in process; path for AB
 is in association with the Zero Cities project
 - Daylighting Pattern Guide
 - Partners like the Integrated Design Lab will keep the tool updated
- School strategic market
 - Decision making at local level
 - ZE Accelerator schools opportunity to partner with utilities
 - Peter more demonstration projects and tours!
 - Jeff wants to talk about Wenatchee school district project
 - NEEP is doing schools well
 - ComEd filing at end of June but that is high level; vertical outreach approaches and programs
- Advanced Jurisdictions strategic market:
 - ICLE
 - Zero Cities Project:
 - Urban Sustainability Directors Network
 - Climate Neutral Cities Alliance
 - A2030
 - Plus other cities
- Utilities strategic market
 - Post-forum workshop bring development
 - Webinar re--advertise what is on-demand; get another 100 on rebroadcast
- Multifamily
 - MF Guide does anyone want it? Contractually obligated to deliver; would do the market research first
 - MF Standard will be the new Energy Star Multifamily Standard
 - Use the Kresge grant as a starting point
 - Code multifamily work have we been talking to Mass and NY?
 - Jim going to make a move in NY for MF Code
 - Already presented to NEEA and NEEP
 - Doug will put us in touch with the MF group in utilities
 - What about MF in CA? whole different animal
 - Steve instead of guides, "chapters" on the website instead of books
 - Think about affordable housing
- Next step is to align the program, projects, current budgets and fundraising necessary to achieve strategic place;
 - Foundation funding may require more focus on underserved markets; hyper local focus
 - Count diversity explicitly in goals and KPIs (count underserved communities)
 - MASS upper low income and lower mid income focus for homeowners

Finance Committee Report and Discussion

Ed - 12 month rolling averages are very helpful; need to encourage a larger reserve

- Mark green line is instantaneous; purple line is rolling average- they will level out;
- Ed Need to work on A/R sometimes we are very slow to receive; requires bigger reserve
- Ralph a little behind in fundraising; still working on closing sponsorship and grants
- Anna sponsorships will be lower than funded (waiting for PG&E and NYSERDA); actual sponsorship
 will be lower than last year and that was lower than last year; but more contract revenue
- Doug helpful to have the Finance Committee vet the financials; higher level of trust in reviewing the
 documents
- Ed a lot less time is needed than in years past!

Fundraising Report

- Stacey presents the business development tool which uses viability score to estimate future revenues
- Stacey since strategic planning, more clarity on what we want funding for; easier to put proposals together for foundations; often hard to define NBI's "impact" in the market which is sometimes a challenge for foundations
- Ralph viability score doesn't change based on recommendations of the board
- Stacey fundraising channels (1) RFP/Contracts (2) Foundations (3) Sponsors/Subscribers and (4)
 Donors
- Doug work with the Barr Foundation in New England
 - Stacey did reach out, but nothing domestic this year; much like RBF
- Eric new idea to encourage Donor contributions to NBI
 - o Anna if you rate high in Charity Navigator rating, you may encourage more contributions
 - o Ed any requirements on donor screening criteria
 - Who we want to ask or who we would take money from?
 - David high net worth individuals work same as foundations but they are not incorporated; still need proposal, SOW, budget, timeline, etc.

Draft Budget Review

- Anna put together budget based on current budget and projections (but not based on strategic plan yet)
- Ed noted that sponsorship revenue is going up despite warnings provided over the course of this meeting that utilities are not able to provide sponsorships.
- Steve budgets estimates for excess are quite low; where have we fallen short?
 - Sponsorships \$380,000 treat as deferred revenue; require services as part of the deal;
 - o Ralph also looking for increase in the number of sponsor
- Steve staffing levels represented in the budget?
 - Ralph currently looking to keep staffing numbers the same and increase productivity (revenue) per FTE; if we do add, we'd like to add staff at the analyst level specifically
 - Michael fee for service do we have staff to deliver?
 - Fell short on reserves, don't presume revenue will come in, need to be sure that it is there;
 don't hire people until we have the revenue.
 - o Ed what about annual raises?
 - Ralph perhaps promotion but salary survey is probably still good
 - Steve salary survey every 3 years and at that time about 20% are out of range
- Draft budget is expected to be delivered by end of fiscal year;
 - Need to flesh out strategic plan and align with the strategic plan

NBI Board of Directors Meeting Wednesday, April 26, 2017

Attendance:

In person:

- Doug Baston
- Ed McGlynn
- Peter Turnbull
- Steve Nadel
- David Goldstein
- Michael McAteer
- Brendan Owens
- Marge Anderson
- George Malek
- Mark McCracken

On phone:

- Nancy Jenkins-Ander
- Patrick O-Shei
- Jeff Harris

Staff:

In Person:

- Ralph DiNola
- Amy Cortese

On phone:

- Cathy Higgins (periodically)
- Mark Frankel (periodically)
- Jim Edelson (periodically)

Welcome and Call to Order at 9:05

Recap of Discussion on Previous Day

- Sponsorship
 - Michael MASS DPU concern regarding industry partnership expenditures; PAs see value but need more people to utilize services of non-profits; only way PAs can continue to fund is to create an business case but this is onerous; staff not motivated to develop business case and run up to VPs within the utility; must remove "thought leadership" from the vernacular; move to more contract work subscription based relationship with deliverables to track rather than free money which cannot be tracked; otherwise PAs will not be able to fund anyone; Everyone else reduced by half (NBI by 1/3 and ACEEE remained constant); want to still work with same people but more consultancy model; perception that this is a speedbump along the road; "sponsorship" and "membership" are not ok; prefers "subscription"
 - Peter also being asked not to spend money; not reducing budgets drastically; but sponsorships are easy way to save money with the stroke of a pen; approach with NBI is to do very specific things (schools and state building analysis); demonstrate that if PG&E hired someone to do work, it would cost more; don't want to call it a contract because that would be more work; "sponsorship" doesn't have same negative connotation but it's easy to cut; haven't thought much about specific wording; cannot call it R&D because CEC does this
 - Nancy at SCE it was easier for "membership" than "sponsorship"

- David NBI should be flexible about how to refer to it depending on partnership; be responsive to the needs of the utility partners;
- Brandon what is the value proposition to utilities?
- George wording isn't a big problem for ComEd; each utility is unique; has to be customized;
 R&D is where it lands in ComEd; no push back just yet but with the change in how to treat EE,
 ComEd expects more scrutiny and oversight; R&D budget is up to 6% which is large;
- Steve constantly changing and you need to roll with it.
- Doug useful for staff to document services that they provide; do webinar for "sponsors" (or whatever we want to call it) to stay in front of staff
- David determine deliverables and tracking by NBI that is shared annually
- Michael work with NBI staff to develop narrative; deeper socialization so more visibility within the company to understand NBI value; (strategy and business development group especially); other large contracts with Cadmus, etc. are not scrutinized

Growth Plan

- Ralph reviewed NBI Staffing, Revenue and Expenses
- New tool for Staff Utilization Targets
 - Communications staff billability and having adequate budget allocation in project budgets
 - Marge project variance within the goals; 25% non-billable (including PTO and holiday); communications are a priority but it's hard to allocate funds for corporate communications; communications people put on half time and pay hourly if they take on extra work; only show up at staff meetings if they want to
 - Steve communications get charge to projects; each staff gets a budget for the year and they
 have to stay within the budget; ACEEE non-billable is much lower than NBI; 1 day per month
 for G&E; Program Managers get 2 days per month; steve is about 25% G&A; more than 50%
 of communications are charged to project; must include communications, web, editing to
 communications; takes a few years to get people to incorporate this regularly
 - Ed 90-95% billable expectation at Franklin
- Fundraising (by funding source)
 - Leveling of sponsorships over time (includes the Getting to Zero Forum)
 - Contracts, grants and very small amount with donations
 - Doug suggests donations are difficult and not very effective; expensive to solicit these contributions: requires high Charity Navigator score
 - Nancy utility support goes under utility sponsorships
 - Steve some from donations is possible, but challenging; need to add things to the website; tighten policy on how they would share information and other "little things" that they ask for; brings in \$30-40K per year; trying to build long term support rather than aggressively pursuing this type of funding; Development Director does mostly foundation work and some of this donor work
 - Brandon in a \$4.5 million budget; pursuing donors has a cost what is it worth?
 Make the donate budget a little bigger and move where it is located on the website
 - Ralph bring down the donations in the budget
 - Doug dollars better invested in scouring to find smaller foundation work;
 - Steve correct the error about sponsorships (more like \$500K); might want to redistribute to grants and contracts
 - David number of states with EERS increased; suggests more utilities who don't know how to run programs but have money to spend; look into the confluence of people who have money or need products;
 - Michael go back to these states with early NBI work (GT50) rather than ZNE
 - States include OH, MI, IL, MD, Iowa, where there is still low hanging fruit
 - High goals states include CA, MA, OR,

- Steve with focus on schools some foundations focus more on education rather than energy; for cities – most have local foundations (the Heinz or Cleveland Foundations, for example)
- Ralph potential hires include one in CA to focus on cities and someone on the East coast circuit rider to roll out stretch codes across the country (train the trainers in code compliance efforts);
 - David train the trainers might partner with ICC (discuss with Jim)
 - SE? Duke
 - Excelon companies Pepco & BGE
 - DCSEL
 - George quarterly group meetings of sister companies get ½ hour to talk to other utilities
 - In NY current NC are all NYSERDA; expecting both ConEd and NGrid to enter commercial NC; discussions on how to work together started with ConEd (carve out incentives to do more buildings) NYSERDA will do more technical work and less incentives to buy down hard costs; NGrid submitted filing for NC but not accepted may approach again no active discussions; aim for competitive not cooperative offering; referrals to IOUs; Clean Energy Advisory Committee looking to do a central clearing house (like in MASS) but no final decision or timing on this
 - Jeff opportunity to work with Community Aggregation Organizations in CA counties

Staff Updates

- Amy Cortese Program and Operations Overview
- Cathy Higgins
 - Leading in LA retrofit project
 - CA Research Gap Analysis technical research road map
 - Forum
 - Where have past participants come from?
 - Marge, usual suspects will travel, where is a new audience?
 - Marge, Florida, things are happening
 - David, Could we get the utility to be a sponsor in response for having the meeting in their service territory?
 - Jeff, 550 you want to go somewhere sunny to attract attendance
 - Ed, Pittsburgh does nothing regarding new construction
 - Mark, looking to work more collaboratively with ILFI, maybe collaborate on events which may impact locations;
 - Marge
 - Attract robust utility partner
 - Local projects
 - Release to the local convention visitors bureau
 - If they want business, this group will help pull together this business for you.
 - See if they have grants available for incoming conferences
- Mark Frankel
 - Energy Water Nexus
 - Huge impact of evaporation off of lakes generating hydro
 - 30 gal/kWh in AZ!!!!
 - George, what would be done differently if you save energy?
 - Need to take the whole dam off line
 - Hearing more about the reverse how much energy to move and clean water?
 - Mark Heard to know how to take action at the project level
 - Efficiency applies to water and energy though separate approaches to engage owners

- Doug isn't the water going to disappear anyway (run down stream?)
 - Mark Lake Powell evaporates as much water as LA uses; some arguments to let water flow into Lake Mead; more impact in dry regions than wet regions
 - David this matters a lot in some cases (Sierras and water for farmers and fish), but maybe not too much in Columbia River
- Jim Edelson
 - Codes Update
 - grid harmonization will become an important part of the codes discussion
 - goal of single code baseline for MF not successful at first IECC hearing
 - Michael what about a MF retrofit guide?
 - Disruptive and challenging Hot water savings is based on distribution which would be a big retrofit; hard to put new systems in MF because so many tenants:
 - NY Stretch ready to move forward with 2016 (8-15% depending on building type);
 working on detailed implementation tool kit detailed based on state requirements and direct legal interpretations;
 - Patrick expects a public announcement in the next two weeks; entered into legislation; (double check with Jim which stretch code this applies to)
 - 2018 stretch code is next to harmonize with NYC;

Next Steps

- Early June virtual meeting to approve budget
- 20th Anniversary celebration in Portland in early-mid September
- · Send out the slides

Adjourn at 12:00 PM