



City Manager's Office
300 LaPorte Avenue
PO Box 580
Fort Collins, CO 80522
970.221.6505
970.224.6107 - fax
fcgov.com

**Minutes
City of Fort Collins
Futures Committee Meeting
Regular Meeting
300 LaPorte Ave
City Hall
February 10, 2014
4:00–6:00pm**

Committee Members Present:

Wade Troxell, Chair
Gerry Horak
Bruce Hendee
Gino Campana

Committee Members Absent:

Darin Atteberry

City Staff:

Dianne Tjalkens, Admin/Board Support
Ana Arias, Public Relations Coordinator
Lucinda Smith, Environmental Services Director
John Phelan, Energy Services Manager
Melissa Hovey, Senior Environmental Planner
Steve Catanach, Light and Power Operations Manager

Invited Guests:

James Newcomb, Rocky Mountain Institute
Martha Campbell, Rocky Mountain Institute
Coreina Chan, Rocky Mountain Institute
Rebecca Cole, Rocky Mountain Institute
Becky Fedak, Brendle Group
Owen Smith, Rocky Mountain Institute
James Mandel, Rocky Mountain Institute
John Bleem, Platte River Power Authority

Community Members:

Dale Adamy, citizen
Myles Crane, citizen/Human Relations Commission
Greg Behm, citizen/Energy Board
Tom Moore, citizen/Air Quality Advisory Board
Kevin Jones, Fort Collins Area Chamber of Commerce

Wade Troxell called meeting to order: 4:02 pm

Approval of January Minutes:

Not discussed.

Chairman Comments: Wade explained the purpose and make-up of Futures Committee to guests. Bruce gave background on *Reinventing Fire*.

Think Tank Item 11: A Global Discussion of our Energy Future (based on the book "Reinventing Fire"): James Newcomb, RMI**Presentation Summary:**

James Newcomb discussed the book *Reinventing Fire* as presenting various solutions for the U.S. energy economy transitioning to a low carbon future. The book takes the long view in four sectors: transportation, electricity, buildings, and industry. The bottom line of the analysis is that return on investments is positive over time. He explained that other analyses have found similar results. There is accelerated change in technology, including development of solar and storage. He explained how the center for new policy is at the community level. There will continue to be significant reduction in cost of solar. He showed a graph in which the soft costs in the U.S. are much higher than in mature solar markets. The second big change in technology is a change in efficiency technology. Efficiency programs are scaling up. When policy is aligned toward efficiency, the results are powerful. He presented the high level results of Stepping Up, which looked at the benefits and costs of accelerating energy and climate goals. He explained the analysis approach looking at building efficiency, electricity supply changes and reducing fossil fuels in transportation. The analyses used the following assumptions: currently available technologies, industry accepted cost projections, implementation rates that are proven, and Fort Collins' infrastructure and demographics. He discussed building efficiency improvement possibilities, and an electricity system using renewables. He explained the opportunity to reduce energy use in transportation will be due to fewer VMT (vehicle miles traveled) and vehicle efficiencies. He said there will be a net benefit to the community of \$260 million, while reducing CO₂ emissions by 15 million metric tons. He added that investment in local energy resources reduces annual cash flows out of the community and will generate over 400 jobs between 2013 and 2030. There will be about \$1 billion in investments to gain a net benefit of \$260 million by 2030. There will be a \$2 billion benefit by 2050. The City's role is to establish clear goals, align the utility business model to sell energy services, and track performance.

Comments/Q & A:

- Fort Collins is starting to develop more infill and has a fixed boundary. Talk about the tradeoff between legacy and build out.
- They took into account aggressive population growth. On the transportation side, there will be new building. On the building side legacy is a huge part of our reductions. We take into account turnover in building stock. When a building turns over, there is a capital investment for new use and investment into energy efficiency becomes incremental. It is a trigger to do a deep intervention in that building.
- The utility can be positioned to help finance that investment.
- Infill and fringe growth provide opportunities in transportation and buildings.

- Owner occupied versus non-owner occupied is a barrier. And appraisals don't provide for efficiencies. In regard to value, we need to educate appraisers about the value of new equipment.
- When it comes to adoption across the building stock, we look at how the utility becomes a service model.
- There could be an on-bill repayment program. We may need to look at a different portfolio of offerings. The financing could be on the building, rather than the owner.
- The City's solar program continues to sell out. But efficiency payback is higher than solar. Education is key.
- At a national level, PV related to house value, we're optimistic that there could be changes at Fannie Mae and Freddie Mac.
- The opportunity is when a building changes use. The split incentive is different than an upgrade scenario.
- Restructuring the utility model is positive in risk mitigation. If the utility isn't part of the transaction, it becomes a threat to the utility.
- The slide showing a mix of electricity supply points to the need for a heterogeneous supply of energy resources, supplies, and strategies.
- There will be a match between what PRPA is doing and local production.
- You move from public to private assets and mixing them, the electric distribution becomes management of the system.
- Utilities is positioned to make long term investments. In solar there is no increase in fuel costs. Does PRPA position itself to sell solar panels to customer? What does the business model look like?
- You mix what you use, and push it more to the utility than the building owner. Businesses are willing to pay a little extra to use clean energy. If the utility is doing the work of making the efficiencies, you will get more traction than trying to get business owners to make changes.
- We can provide the services of changing air conditioning and performing other retrofits, and distribute the cost on the bill over 20 years.
- We ran a model for a portfolio of supplies to get a sense of workable systems. It will take a lot more work to determine all the details. The more you do for demand response and managing against peak, the better.
- The route we charted does require owner and tenant buy-in and support in efficiencies. But the payoff is huge. We are downsizing the total supply required.
- Retrofitting is one of the highest hurdles to clear, but maybe we can help that with financing.
- In good markets people are willing to spend that money. Factoring in the economy is a challenge.
- Utility as a service provider model is looking at how to get the savings to finance the projects. There could be options for tariffs, occupant ownership of equipment, etc.
- How do you explain energy densities? There are tradeoffs with energy density. How do you think about that?
- We've looked at a hybrid solar strategy. The most potentially transformative change is opportunity for energy density and storage.

- The consumer choice element and project components are key. You learn and do simultaneously, rather than having large roll-outs. Demonstrations are important, as is keeping the consumer element.
- We looked at job creation and net cash flows, but that work could be deepened to look at health benefits, property value, and character of community.
- Fort Collins has a positive economic slope which helps reinvest into the community. It takes vision and leadership to make large scale changes. An example was the undergrounding of electric lines in Fort Collins.
- Using the analogy of undergrounding, that work was done by developers and was moving slowly until someone was electrocuted. There has to be something dramatic for the consumer to change behavior, and staff and Council to agree. The specific steps and changes needed aren't there yet. We need to know what to do in 2015/16. Just because you want something to happen doesn't make it so. Total benefits and costs are not occurring to all the same people.
- The cost-benefit allocation, the approach Fort Collins is looking at, drops it down to the customer level. This is different than another community that purchased solar and passed the cost on to the customer.
- The agreement we have with the three cities and PRPA prevents the Fort Collins Utility from making changes independently.
- The Climate Action Plan lines out definable terms and costs. The Stepping Up work, informs our goals.
- People's willingness to pay on a survey is different than when they get the bill. Some people win and some lose with policy. Doing this in real time is hard.
- We'll begin developing tactics for 2015/16, but we also need to look at the future. It took a long time to change meters. It's critical to take the long look forward and choose our direction.
- I'd like to see five and ten year budgets.
- An opportunity is FortZED. You have a pilot zone to prove what works.
- FortZED won't get us to 80% reduction.
- Setting a goal might not be achievable but working toward the goal gives direction. It gives benefit at multiple levels of attainment, including finding ways to educate the community and allow opportunities.
- If you set the goal too high and it's not achievable, it's hard to get buy-in. Was new technology reinvestment figured into the model? If new technology comes along, is the cost of retrofitting the retrofit built into the model? At the pace we're spending money on this and advancing the technology it may be only five years before you want to replace that technology again. It may change the investment side of this.
- As the model progresses you continue to pay for efficiencies.
- Technology is going to advance quickly and will become obsolete quickly.
- In large scale production, the changes will not happen that quickly.
- The balancing comes from the distribution system.
- The only reason to retire something early is if you can beat the cost with the efficiency.
- We are banking on better technology coming.
- That's where you need a strong economy with innovation.

- If the goals were based on something you could do in a few years, I'd feel more comfortable. Show me how to get to the goal.
- But as the Futures Committee we are looking out 30 to 50 years.
- We're in agreement about short term goals and action plan. Is the Futures Committee goal to predict the future or set a course?
- There is no rationale for the timeframe chosen, though.
- We are talking about investment over decades, so it's appropriate to think about the horizons and how to test the path in the near term.
- If we can look at costs, benefits, etc., we can choose a goal for the next 15 years.
- The pragmatic reason for setting the long term goals is to be able to set short term goals.
- We are working on that right now, looking at what energy efficiencies we will need to see, how many retrofits that means, and what adoption rates will have to look like. How many packages do we need to sell? We are getting to that specificity in Utilities.
- For PRPA 2030 is a short period of time.
- A line with points gives the impression you have a way to get there.
- As an analogy, in a building process there is conceptual work and schematic design. You do budgeting and determine what is reasonable. In this case the Climate Action Plan sets the details.

DO 11: Next Steps

Not discussed.

Think Tank Item 12: Greenhouse Gas Goals: Lucinda Smith, John Phelan, Steve Catanach and Melissa Hovey

Presentation Summary:

Lucinda presented a PowerPoint. The Energy Policy and Climate Action Plan are both due to be updated this year. Staff is looking at where to aim. Electricity, ground transportation, and natural gas comprise most of the inventory of GHG. We have had a goal and tracked progress, reducing emissions while population has gone up. Some challenges are climate change and car dependency. She discussed public perspective and that Fort Collins citizens would like the government to take more action regarding climate change. Fort Collins' emissions are small globally, but we can be a leader providing replicable models. The Brendle Group has helped develop three possible end goals and RMI's Stepping Up looks at specifics of one possible goal. She explained the three different goals. The commonalities for reaching the goals are achieving net zero electricity emissions, changes to vehicle efficiencies, and zero waste. The differences are in leadership positioning, innovation opportunities, and impacts of outflow of cash from the community, etc. Carbon neutrality will require carbon offsets at some point. John Phelan discussed what they have learned thus far, including that increased energy efficiency will at best offset emission from new growth, and energy supply resources must be changed, long term benefits outweigh costs, collaboration will be essential, and community buy-in will be required. He discussed PRPA's new strategic plan that aligns with Fort Collins' GHG goals. He showed PRPA's emission reduction estimates, municipal power purchase costs, and forecast with a carbon cost. He explained how climate leadership is economically beneficial. We all want to see

Fort Collins continue to thrive; we can have a “triple top line.” Lucinda discussed the importance of collaboration, leadership, and social impacts. The trajectory to the goals will not be a straight line, but fluctuate based on decisions made along the way. Staff’s next steps are technical and economic analyses, public engagement, etc.

Comments/Q & A:

- I didn’t see resiliency mitigation in this presentation. By being more aggressive, leadership can demonstrate that in our budgets going forward. I’m concerned about constraining and creating future challenges for our community. I don’t see anything that justifies accelerating the goal. In 2005 natural gas was in the clean energy sector, but that has changed politically. In the political context, I tend to be more pragmatic in doing what makes sense for our community rather than selecting a lofty goal.
- We will be looking at resiliency and strategies for climate change mitigation in the Climate Action Plan. There are strategies that will accomplish both.
- Making our community more robust, making investments in stormwater has done that.
- In 2008 we set a 2020 goal and a 2050 goal, which were set without an attached plan.
- Have you found that our goal is more achievable now? Have we determined that the goal is too low? Why are we reevaluating the goal?
- There are new opportunities including the price structure of renewables and installation of advanced meter infrastructure, and electric vehicles.
- The last plan called for smart meters, but they were not as advanced as what we have implemented.
- The climate science has changed as well. Fort Collins has been a leader, and there are opportunities to be a demonstration for a replicable model that can assist other communities around the world.
- 80% by 2050 wouldn’t show that leadership?
- That is now a pretty common goal. We are seen as a front-runner in the climate world. That brings a lot of money to the area. Taking on a more aggressive goal attracts the right kinds of businesses.
- Articulating that in the messaging is important.
- We talk about climate urgency, community values, and economic value.
- We have to weigh this with people having to pay more money for energy. You won’t find people who don’t support GHG reductions.
- The opportunities for funding happen when you have a real plan with specifics. We can pursue funding if we have a good plan and regional cooperation.
- I have been following the climate action movement outside governmental groups. In 2007 there was a local rally to try to urge the adoption of the 80% reduction by 2050. It was vanguard to adopt the goal then, but is standard now. If we want to be on the leadership edge, we need to adopt a more aggressive goal.
- We could be super leaders by making a zero emissions goal by 2015. But that is insane without steps to get there.
- It takes resources to develop the more detailed plan. We are asking Council for direction in order to do the planning.
- How would changing this goal change what you are doing in the next couple of years?
- If we plan for 80% by 2050 or 2030, there could be changes in what we do.

- But the original goal is still a tall order. Why not wait a couple of years to see if we are getting traction. If it doesn't change what we are going to do over the next few years, we should hold out.
- PRPA is making decisions now for 2030. What we do will affect and be affected by that.
- We need to consider the message this gives to our sister communities; we are dependent on them for changes in PRPA. It is important to involve the regional partners. The VMTs, use the growth area, but we're not in charge of the growth area. Dealing with Longmont, Loveland and Estes, things don't happen without them.
- We said we want to remain the lowest cost provider in the region. To say do 80% by 2030, we move outside that rate.
- We are just getting other communities buying into wind. We need to figure out how to reach out and have regional cooperation. The change in the general manager at PRPA has changed everything.
- John and Lucinda are asking to bracket where we are looking and the long term time frame. PRPA's changes will have a strong effect by 2030.
- Without the three other communities and PRPA assisting with that, we won't be able to achieve our goals affordably. What changes in laws, regulations and staff resources are needed to make these changes?
- RMI was able to bring integration of the various sectors.
- What, as a City, can we affect? What can we do that has long term impacts? When we passed green building codes it was difficult.
- If the goals cause the public or PRPA partners to react negatively, that is not a good thing. What really matters is accelerating reduction of emissions.
- The reason we have the programs we have now were the policy goals we made in the past.
- As we approach the GHG it informs the Energy Policy. The Energy Board has been tasked with looking at transportation, electricity and the built environment.

DO 12: Next Steps

- We have the Council work session tomorrow. There is a balancing act. FortZED can play a role in prototyping, and informing strategies. Higher goals work well there. We should follow up with PRPA after the work session.

Additional Discussion:

None.

Meeting adjourned by Wade Troxell at 6:12pm.