

**MINUTES
CITY OF FORT COLLINS
AIR QUALITY ADVISORY BOARD
DRAFT**

Date: Monday, June 18, 2018
Location: Colorado River Room, 222 Laporte Ave.
Time: 5:30–8:00pm

For Reference

Mark Houdashelt, Chair
Ross Cunniff, Council Liaison 970-420-7398
Cassie Archuleta, Staff Liaison 970-416-2648

Board Members Present

Arsineh Hecobian
Mark Houdashelt, Chair
Karen Artell
Harry Edwards
Greg Clark
Matt Tribby
Chris Wood

Board Members Absent

Vara Vissa, Vice-Chair
Jim Dennison

Staff Present

Selina Lujan
Molly Saylor

Guests

N/A

Call to order: 5:30 PM

Public Comments

N/A

Approval of Minutes

Harry moved and Matt seconded a motion to approve the May minutes as revised.
Motion passed, 6-0-1.

AGENDA ITEM 1: Climate Program Update

Molly Saylor, Environmental Planner and Data Analyst, presented an update regarding the City’s Climate Action Plan progress and goals. The Climate Program team recently transitioned to a new carbon accounting protocol and acquired new data sets which prompted revisions in the progress made toward reaching CAP goals. Some revisions were made to carbon modeling factors including inventory and forecasting calculations.

Presentation

Inventory Revisions

- Revisions were calculated back to the 2005 baseline and indicate that Fort Collins was 15.4% below that baseline in 2016 (rather than 11.5% below, as previously calculated and reported). Revisions were made based on the availability of new data, the adoption of a new international greenhouse gas protocol, and the

identification and correction of an error associated with vehicle distribution.

- The revised methodology shows a change of -3.9% (from the 2005 baseline) in carbon inventory for 2016. New data and methodology that influenced revised calculations includes:
 - accounting for between 3% and 10% ethanol (depending on year) blended into gasoline,
 - improved science regarding the impact of methane,
 - updated waste characterization,
 - an update to the miles per gallon data,
 - corrected error in vehicle distribution, and
 - alignment of waste data with new waste characterization.

2016 – 2017 Progress (Unrelated to Revisions)

- Progress between 2016 – 2017 shows a change of -1.07% in relation to the 2005 baseline. This progress is based on changes to the electricity emissions factor and a decrease in electricity use; however, there have been increases in VMT and natural gas use and decreases in methane capture at the landfill.
- City investments made between 2016 and 2018 equal \$11.7 million and investments between 2015 and 2020 will result in the equivalent of \$220 in cost savings per household per year for the lifetime of the investment. The energy efficiency savings achieved through 2016 and 2017 investments is roughly equivalent to taking 7500 homes off the grid. There is also increased momentum from PRPA and other partners to increase renewable energy investments (e.g., new 150 MW wind farm will begin production in 2020).
- Fort Collins has decreased emissions while it's GDP and population have grown; per capita emissions have decreased significantly (currently at 12 metric tons per capita).
- Fort Collins saw significant electrical savings in 2017 (over 28 gigawatt-hours). In addition, a third-party evaluation of City efficiency programs confirmed this savings and calculated a benefit-to-cost ratio of 1.8.

Future Advancements and Outreach

- Time of Day rates will begin in 2018.
- Natural gas use is on the rise due to population increases. There are already opportunities to improve the efficiency of natural gas including heat pump technology advancements, collaboration with Xcel and building energy scoring.
- Fort Collins is in the process of updating its City Plan and Transportation Master Plan and developing an EV Readiness Roadmap, which may lead to decreases in transportation emissions.
- The Regional Wasteshed Planning process is underway, which will analyze infrastructure options to prepare for the closing of Larimer County Landfill. In addition, grocery store composting has been a great success and continues to help reduce landfilling. Significant progress has been made, but changes in the global recycling market mean that challenges remain.
- Fort Collins is participating in the 2018 Bloomberg Philanthropies Mayors Challenge to improve efficiency in older low- and moderate-income rental housing units.
- The City has embarked on a second round of the Innovate Fort Collins Challenge for 2018.
- A battery demonstration project is underway at 222 Laporte to better understand the storage capacity and potential integration of solar/battery systems in commercial buildings.
- Fort Collins is in the midst of a pilot marketing campaign to improve community engagement. The Take Two Pledge encourages residents to replace inefficient lightbulbs with LEDs and take one car-free trip each week.

In Conclusion

- If we continue at sustained funding levels, we'll exceed our 2020 CAP goal (-22%). In consideration of the investments that Platte River Power Authority plans to make in renewable energy (150 MW wind and 20 MW solar, plus potentially 75 MW more wind), we could be at -40% in 2021; however, -80% by 2030 is still going to pose a lot of challenges.

Discussion

- Greg asked how the \$220 savings per household (per year) was calculated for the lifetime of the investment and if it accounts for costs that residents incurred to achieve savings.
- *Staff follow-up:* Molly will get more detail on the calculations. She will investigate whether this includes costs that residents pay to get insulation, weather stripping, etc.
- Matt asked what the largest source of methane is.
 - Molly replied that landfills are the largest source of methane and that removing waste from landfills in recent years reduced methane more than originally thought. A recent waste audit shed light on changes in waste characterization, which contributed to revised methane calculations.
- Matt asked how mobile sources, such as vehicles, are characterized.
 - Molly stated that characterizing mobile sources is difficult as data is much less robust; however, she obtains vehicle miles traveled from the regional planning organization, and a breakdown provided by CDPHE (who determines distributions from CDOT count numbers). The City plans to create a fuel sales model next year; one benefit of this method is that Molly can get the entire data series back to 2005 at a local level. The reasoning behind this type of modeling is that the current vehicle distribution counts can't characterize vehicles that use alternative fuels or electricity.
 - Mark followed-up by asking if the City would characterize mobile sources both ways (via vehicle distribution and fuel sales) as a comparison. He asked if one method produces results that are systematically higher than the other.
 - Molly responded that it would be ideal to perform a comparison. The City of Denver uses these methods and has found them to be within a few percentage points of one another. She also stated that she's not aware of one method's outcomes being systematically higher than the other and believes that understanding the pros and cons of each will be helpful, especially as we move forward with EVs.
- Mark asked if the City can track natural gas use (e.g., old homes vs. new construction). He asked if there is a way for Fort Collins to implement a policy that would prohibit new gas hookups from being installed.
 - Molly stated that, historically, there has not been a way to track natural gas use in such a manner, but that Fort Collins' participation in Partners in Energy could potentially help with this in the future. She noted that there is a proposed BFO offer that includes an update to CAP framework which may involve natural gas reduction strategies.
- Matt asked about the calculations associated with emission factors for natural gas and diesel fuel. Specifically, he asked if the City has looked at region-specific emission factors and if the national-level numbers might be too conservative as heat content varies by region and may play a factor in calculations.
 - Molly stated that they have not and noted that while electricity emissions factors change from year to year, natural gas and diesel fuel factors do not.
- *Staff follow-up:* Molly will investigate variations in heat content and possible effects as time allows and consider implementing if she finds there to be a difference.
- Mark asked if the City calculates electricity emissions factors and whether residential solar is accounted for.
 - Molly stated that PRPA provides electricity emission factors and confirmed that residential solar is accounted for indirectly as local solar lowers the load that must be generated by PRPA.
- Greg asked how granular the data is and if it will be possible to detect the impact of upcoming TOU changes.
 - Molly stated that TOU impacts have been modeled in a forecasting template and noted that data

- with a high level of granularity should be available for future study.
- Greg asked whether the most significant reductions are due to renewable investments.
 - Molly replied that while renewables play a large part, other resource areas also play a role. Waste reductions and electricity use were also significant factors this year.
 - In relation to the increase in natural gas usage, Matt asked if Fort Collins has a plan to push commercial businesses to install solar.
 - The City will address such possibilities during upcoming CAP planning sessions.
 - Greg asked about new financial products to incentivize efficiency upgrades.
 - Molly replied that the City's climate economy advisor is currently working to determine what financial options will be most effective and is slated to release a plan within the next year.
 - Mark asked if the City has a concrete way to determine how much change is driven by initiatives/rebates and noted that such data would be very useful to the City.
 - Molly noted that the City is currently working on better analyzing such data. ICLEI has developed a new tool (Drivers of Change) that may help with such analyses in the next few years.
 - Matt noted that since it seems our immediate progress is dependent upon renewables, does the City have a contingency plan if there are complications with these.
 - Molly replied that forecasts show continuing to fund initiatives at sustained levels will put the City beyond its 2020 CAP goal and noted that the planning process will be key to achieving the 2030 goal.
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Board Updates

- 5/4/18 – Mark attended a meeting with chairs from the Planning and Zoning Board, Natural Resource Advisory Board and Rebecca Everette to discuss oil and gas setbacks. A summary of each Board's position has since been distributed. Mark reiterated the AQAB's concerns with the new setback codes at this meeting.
- 5/24/18 – Mark, Harry and Karen attended the Carbon Inventory Deep Dive at which modeling and forecasting methods were discussed. If there is interest amongst Board members, this could be a future meeting topic.
- 5/30/18 – Mark attended the Fort Collins Green Buildings talk.
- 5/30/18 – Selina Megan held a meeting set up by Cassie to discuss the City's interest in contracting with CSU for a project to help the City characterize the local health impacts of radon exposure. Karen, Jim, Mark and Karen attended the meeting. Cassie will continue talks with CSU to clarify their role in the radon health risk characterization. She will report back to the AQAB in July.
- 5/31/18 – Mark attended a Citizen Advisory Committee meeting for the CAP at which the committee split into small groups to rank and express concerns about proposed BFO offers.
- 6/14/18 – Arsineh attended an Energy Board Meeting at which budgeting for outcomes, last year's rate increase, quarterly updates on revenues, and the second round of budget offers were discussed. Dan Zimmerly from CSU discussed research on the challenges associated with using renewable energy, making 100% renewable goals, and how other cities are approaching such goals.
- Mark stated that several local groups have pushed City Council to officially declare that they would like to achieve 100% renewable electricity by 2030. The staff plans to devise an outline of the research needed to develop a plan to obtain 100% renewable electricity by 2030; however, there is a significant amount of uncertainty around this, and the City may ask the AQAB for feedback in the next few months.
- Ross Cunniff will attend the AQAB's August meeting for the Board's periodic review..
- As discussed previously, Mark wrote a draft letter of recommendation from the AQAB to Council urging them to initiate an organic waste collection pilot program; he may now present this as a personal recommendation instead.

Staff Updates

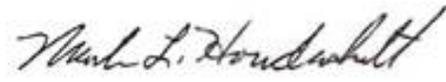
- A new radon questionnaire will be distributed on or around 6/22/18 to those who have purchased radon kits and tested high levels.

Future Actions and Agenda Items

- 7/17/18 – The resolution initiated by the Economic Advisory Committee to have multi-board meetings will go before Council.
- 7/25/18 – Event at Harmony Cottages – a nearly net-zero energy, affordable housing complex – from 4:30 to 6:00; they're asking for \$5 donation for USGBC non-members.
- The Board's four-year periodic review will likely occur in August. AQAB members can still send comments to Christine Macrina through end of June.
- 8/14/18 – Council work session to discuss the regional watershed project.
- 8/28/18 – Council work session to review building energy scoring and affordable housing incentives.
- 10/23/18 – Council work session to discuss outdoor residential burning.
- Ozone monitoring – Does the Board want to push for monitoring in southeast Fort Collins?

Meeting Adjourned: 7:15 pm

Next Meeting: July 16, 2018



Signed by Chair