



Environmental Services
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MEMORANDUM

Date: June 3, 2020
To: Mayor and City Council
Thru: Darin Atteberry, City Manager
Jacqueline Kozak-Thiel, Chief Sustainability Officer
Michelle Finchum, Interim Climate Program Manager
From: Lucinda Smith, Environmental Services Director
Adelle McDaniel, Interim Senior Sustainability Specialist
Re: **Incorporating Industrial Process and Product Use Emissions into Community Carbon Reporting**

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The purpose of this memo is to summarize how staff plans to incorporate Industrial Process and Product Use (IPPU) emissions in community carbon reporting.

Bottom Line:

Staff will prepare one carbon inventory for 2019 that includes known IPPU emissions and will evaluate progress toward climate action goals with these emissions included. Implications for this change include:

- **2005 baseline calculation for goals with IPPU emissions.** Staff recommends assuming zero IPPU emissions in the 2005, as this is the most conservative estimate.
- **Expected changes to inventory.** The 2019 inventory has not yet been completed; however, when including IPPU emissions in the 2018 community carbon inventory, percent decrease from the 2005 is 7%, compared to 2018's previously reported value of 14%.
- **Expected changes to progress on the 20% by 2020 goal.** With the addition of IPPU, projections place the 2020 inventory at a 5-18% decrease from the 2005 baseline. Projections are based on the 2018 inventory and recent high and low IPPU data.
- **Data availability.** 2019 IPPU emissions data are expected to be released by the Environmental Protection Agency in the fall of 2020. Staff will plan to report the 2019 inventory once these data are available.
- **Communication with Broadcom.** City Manager Darin Atteberry reached out to Broadcom to make them aware of this change in Fort Collins emissions reporting. Broadcom acknowledged this change and that Broadcom's emissions data are already publicly available via EPA annual reporting.

Additional Context:

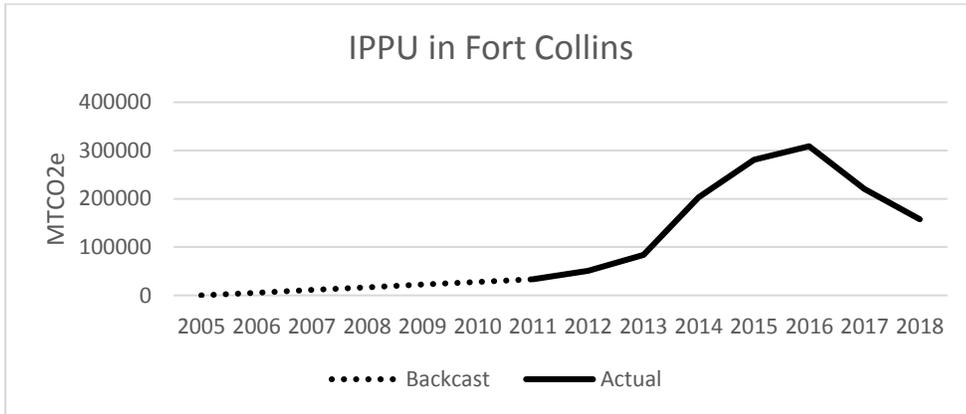
2005 baseline calculation for goals with IPPU emissions.

Currently, Broadcom is the only source of IPPU in Fort Collins that meets the EPA's reporting threshold. Broadcom began reporting IPPU emissions to EPA in 2011, in compliance with the Greenhouse Gas Reporting Rule. Although Broadcom was operating in Fort Collins prior to 2011, the EPA did not require emissions reporting prior to that date. As a result, IPPU emissions information is not available from 2005 through 2010.

Staff recommends backcasting IPPU emissions to zero in the 2005 baseline (Graph 1). Without data for these emissions from 2005 to 2010, it would be difficult to have certainty about any number staff would extrapolate. Knowing that emissions between 2011 and 2016 followed an upward trend, it is reasonable to assume that previous years also followed this trend. Though staff is aware that Broadcom was producing some emissions in 2005, using zero is the most conservative estimate, so is recommended.



Graph 1: IPPU in metric tons of carbon dioxide equivalents (MTCO₂e) using known data from 2011-2018 and backcasting to zero for the 2005 baseline.

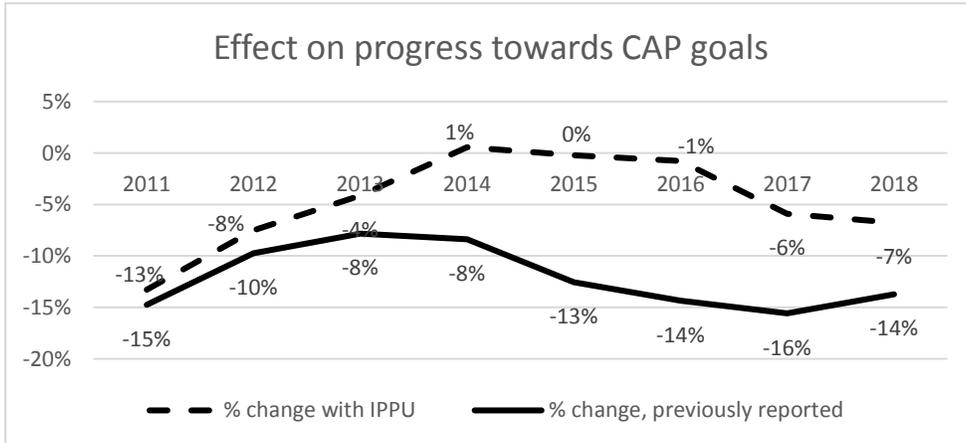


Expected changes to inventory and progress on goals.

Though the 2019 community carbon inventory is not yet complete, staff anticipates that including industrial process emissions will have a similar effect on the 2019 inventory as it does on the 2018 inventory. When including industrial process emissions in the 2018 community carbon inventory, percent decrease from the 2005 baseline is 7%, compared to 2018’s previously reported value of 14%. This means it is unlikely that the community will reach the interim goal of 20% reduction by 2020. Projections suggest that community emissions will be 5-18% down in 2020 compared to the 2005 baseline. Projections were calculated using the 2018 inventory and recent high and low IPPU data (2016 and 2018, respectively).

Staff will include a footnote regarding the percent decrease without the inclusion of industrial process emissions. This value will reflect only the emissions that were included when the goals were adopted. Previously reported values compared to those including IPPU from 2011 to 2018 is shown in the Graph 2 below.

Graph 2: Percent change from baseline using new methodology (including IPPU) compared to previous methodology (not including IPPU) using known data from 2011-2018.



Next Steps:

Staff will take the following next steps regarding IPPU emissions in the community carbon inventory.

- Complete the 2019 community carbon inventory, including the 2018 industrial process emissions value. The inventory is expected to be completed this fall.
- Continue conversations with Broadcom to understand what can be done to continue to reduce IPPU.
- Through the Our Climate Future process this year and into 2021, continue to seek community perspectives and Council direction on climate action in Fort Collins.