

# Greening the City with Better Lighting

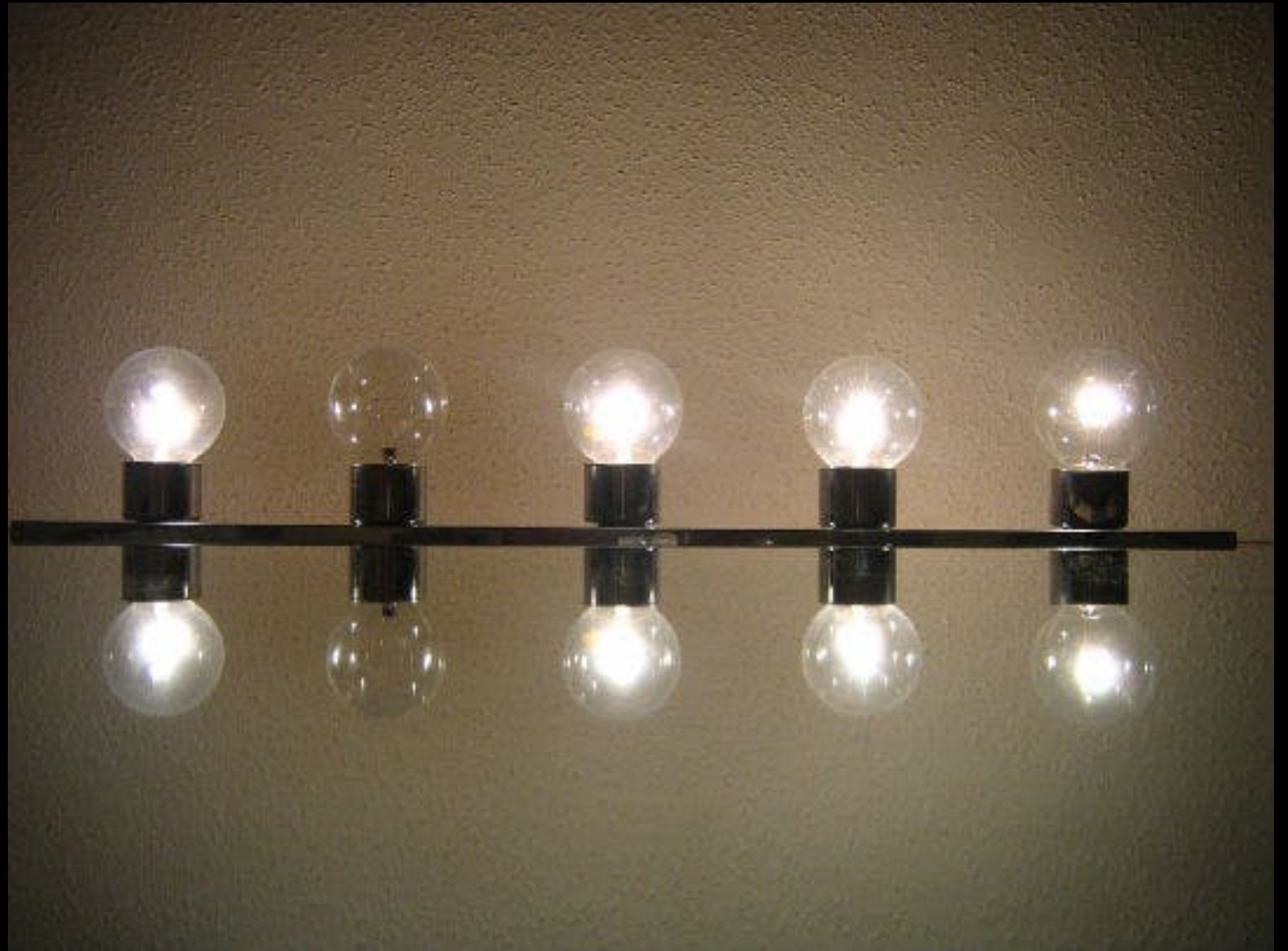


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You probably only think about your lightbulbs when they burn out



But if you own a large building, you may see lightbulbs as a cost driver



X 1000s =



When we see San Francisco's lights illuminated together,  
we also think of **Greenhouse Gas emissions**



And our Climate Action goals include “Roots,” Zero Waste, 50% sustainable transit and 100% renewable energy



SAN FRANCISCO CLIMATE ACTION

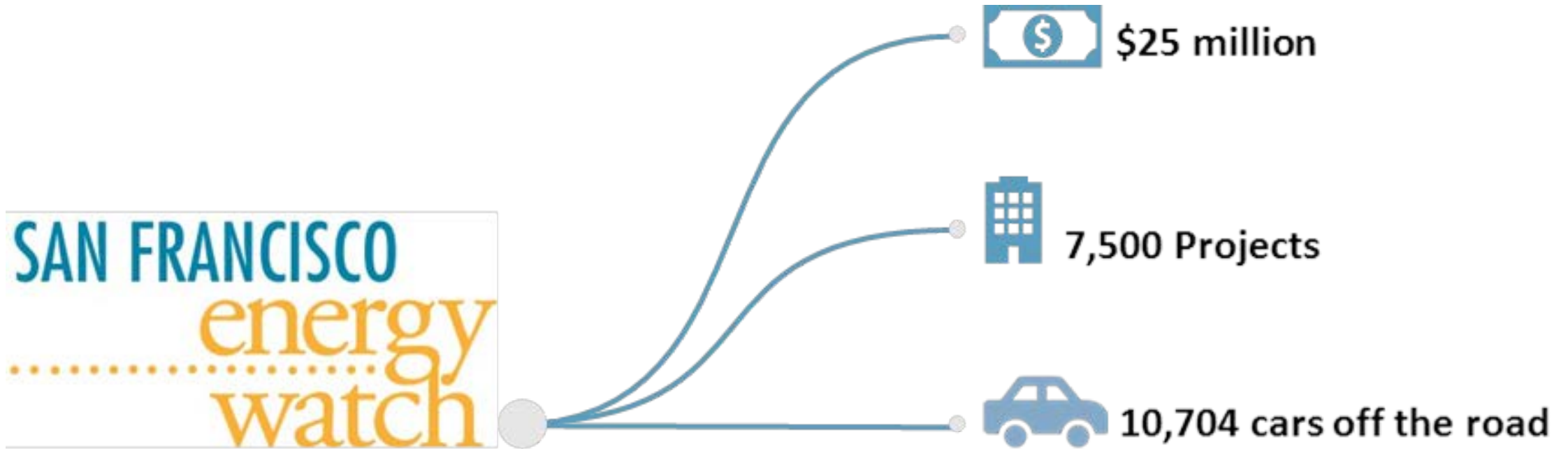
0 50 100



Which is why the Department of Environment helps property owners migrate to newer, more efficient lighting

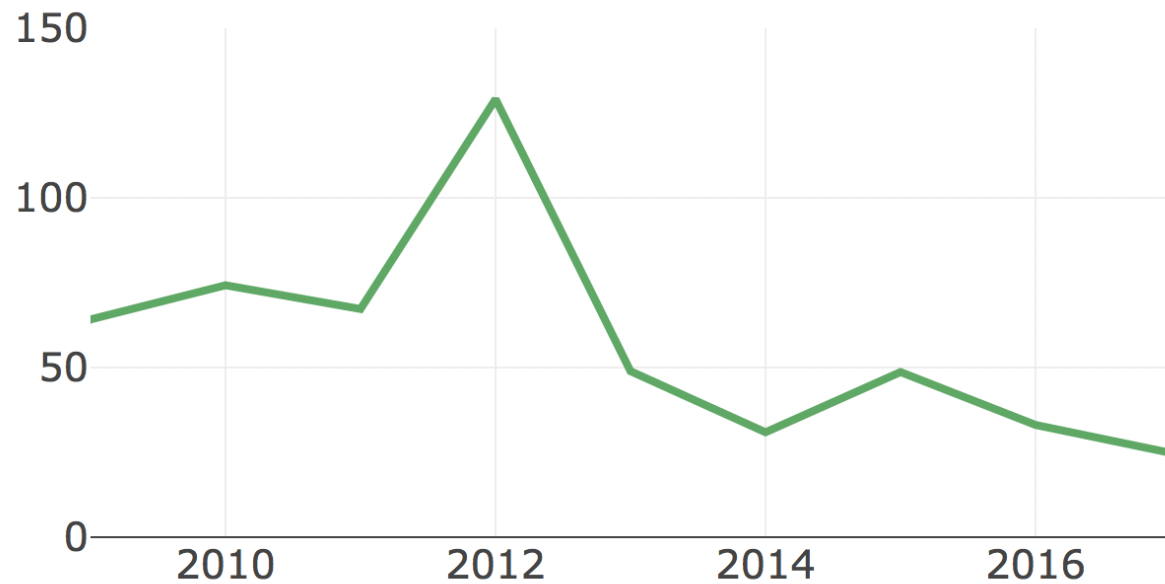


# Energy Watch, in partnership with PG&E helps businesses and multifamily buildings reduce energy by installing more efficient lighting

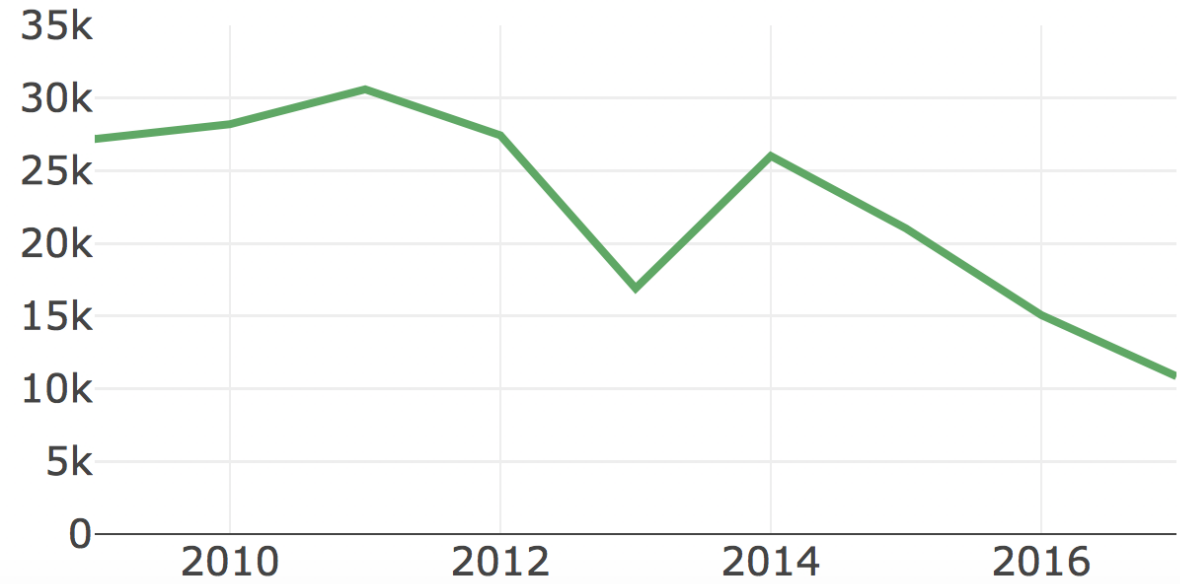


# But both the number of projects & energy savings have decreased in recent years

Average monthly projects by year

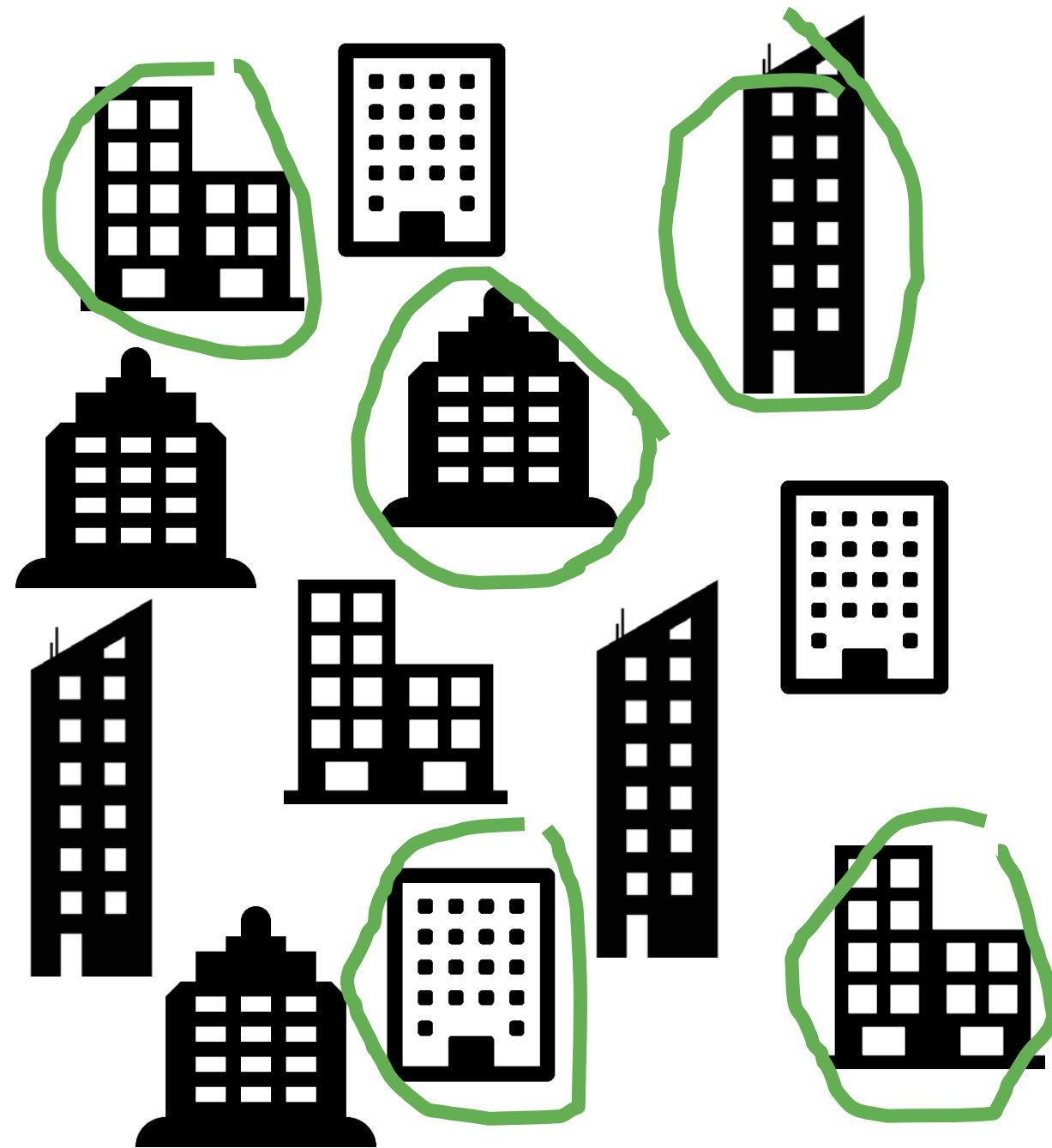


Average monthly energy savings by year





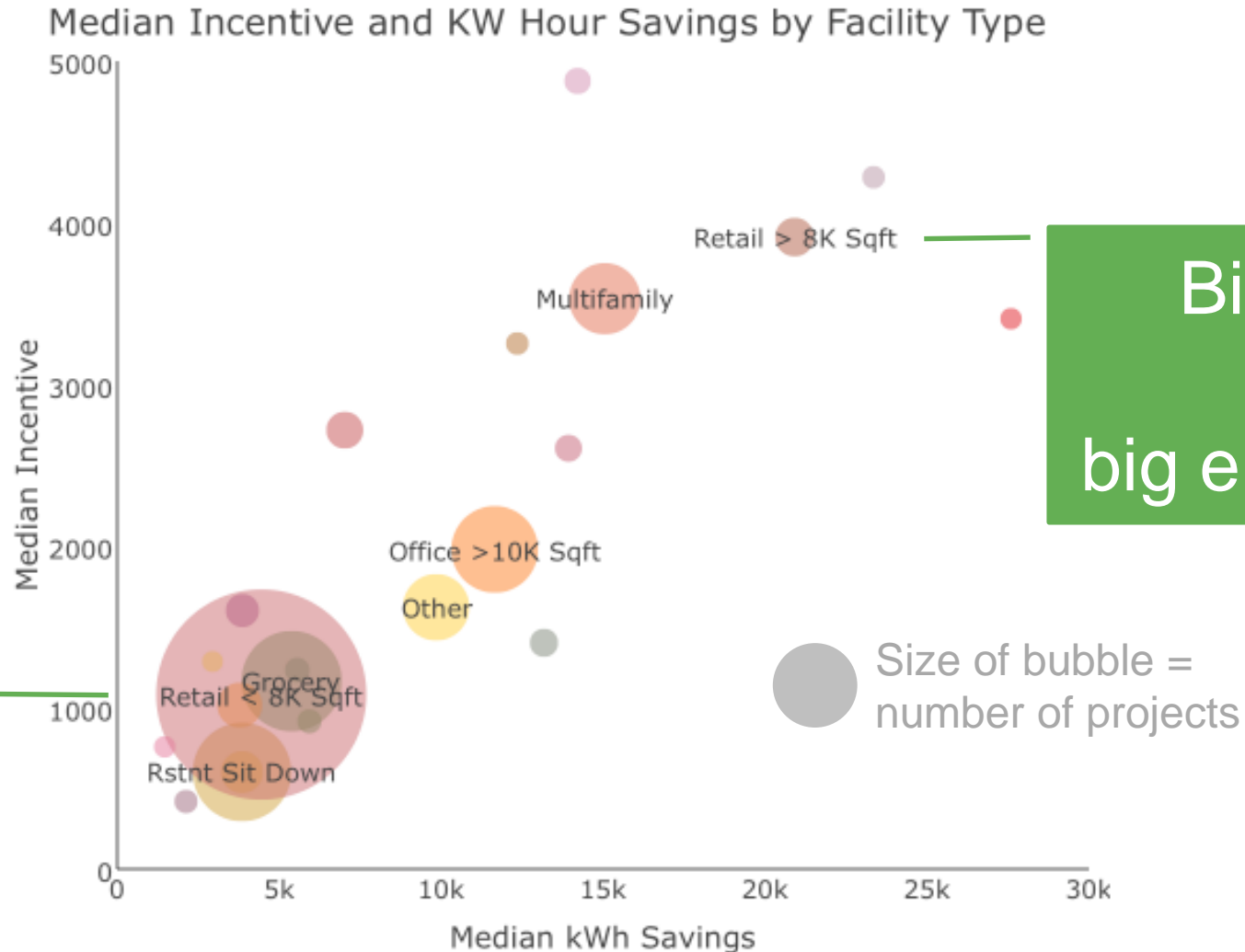
Can we find new leads and identify which leads are good candidates?





Data**Science**<sub>SF</sub>

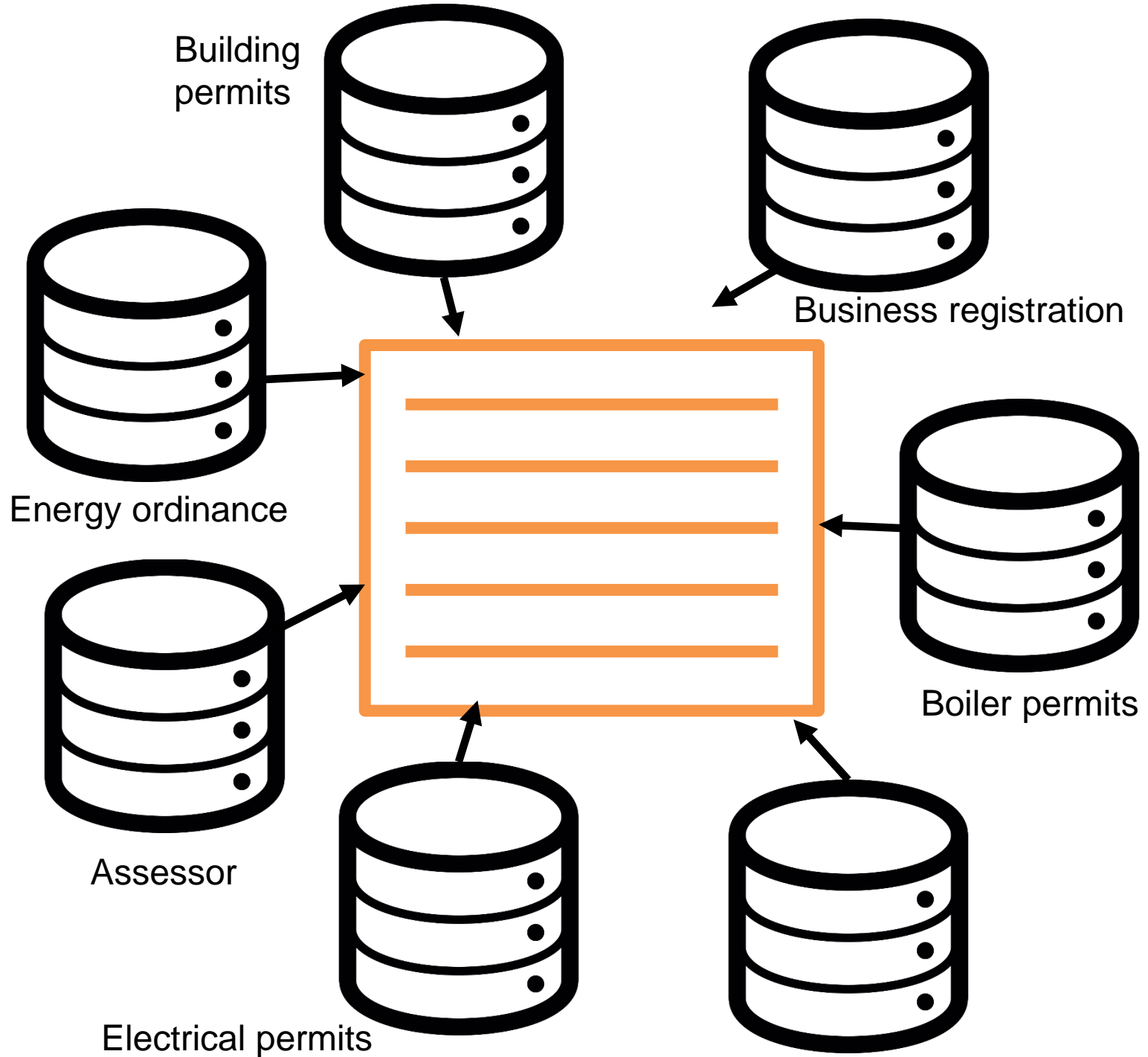
From their pool of completed projects we learned that an opportunity exists to target bigger buildings with greater potential energy savings



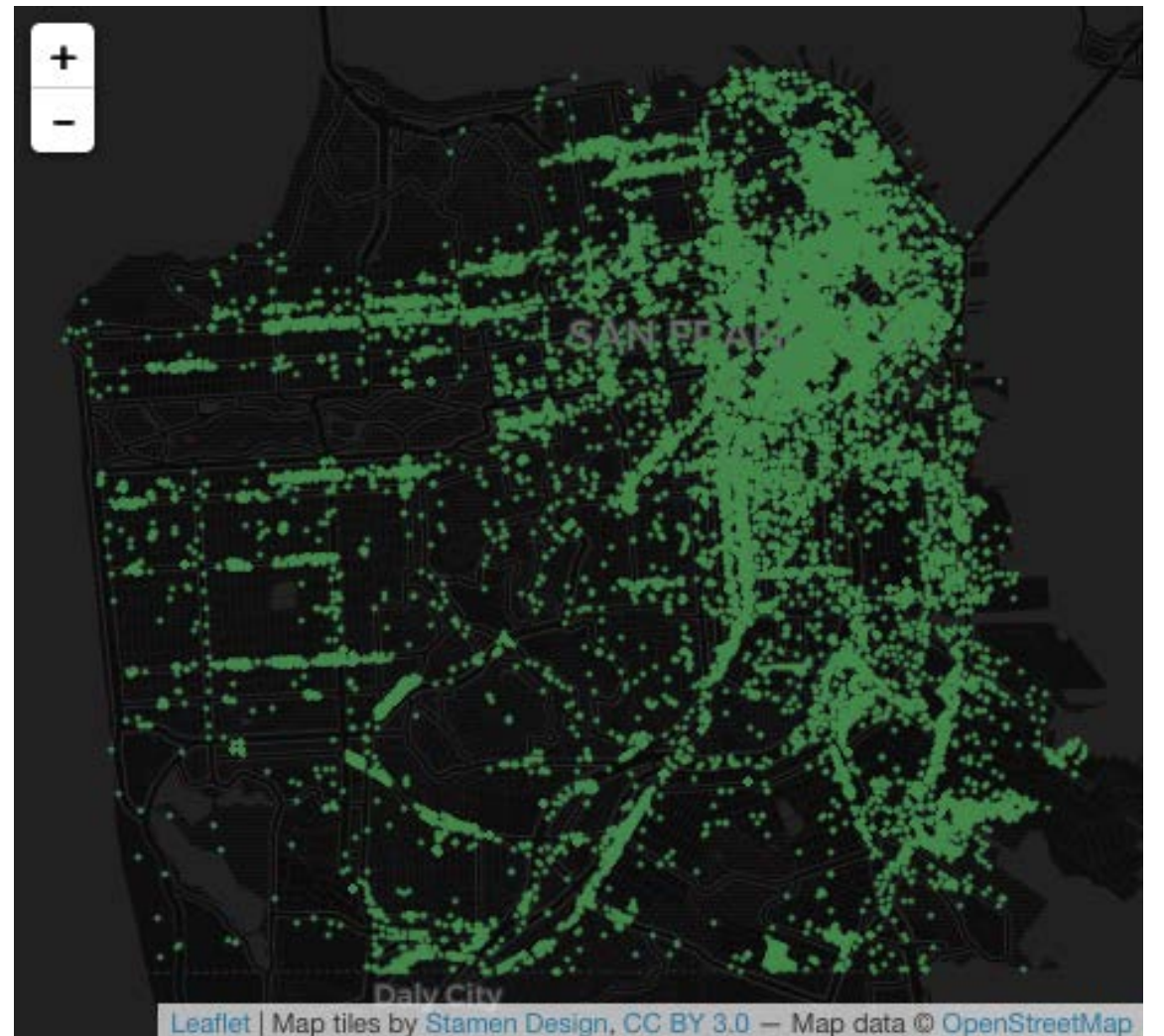
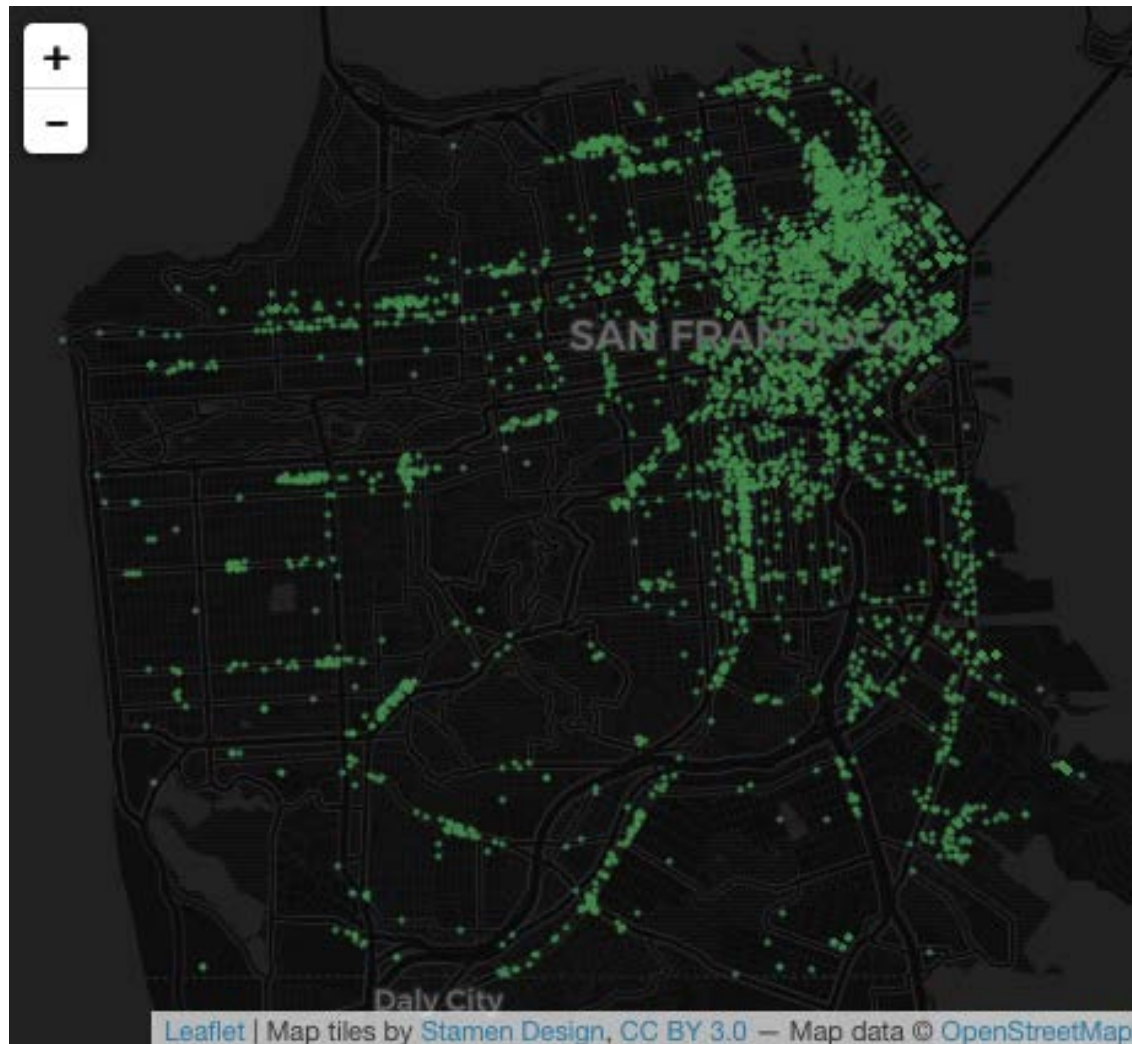
Small buildings  
=  
smaller energy savings

Big buildings  
=  
big energy savings

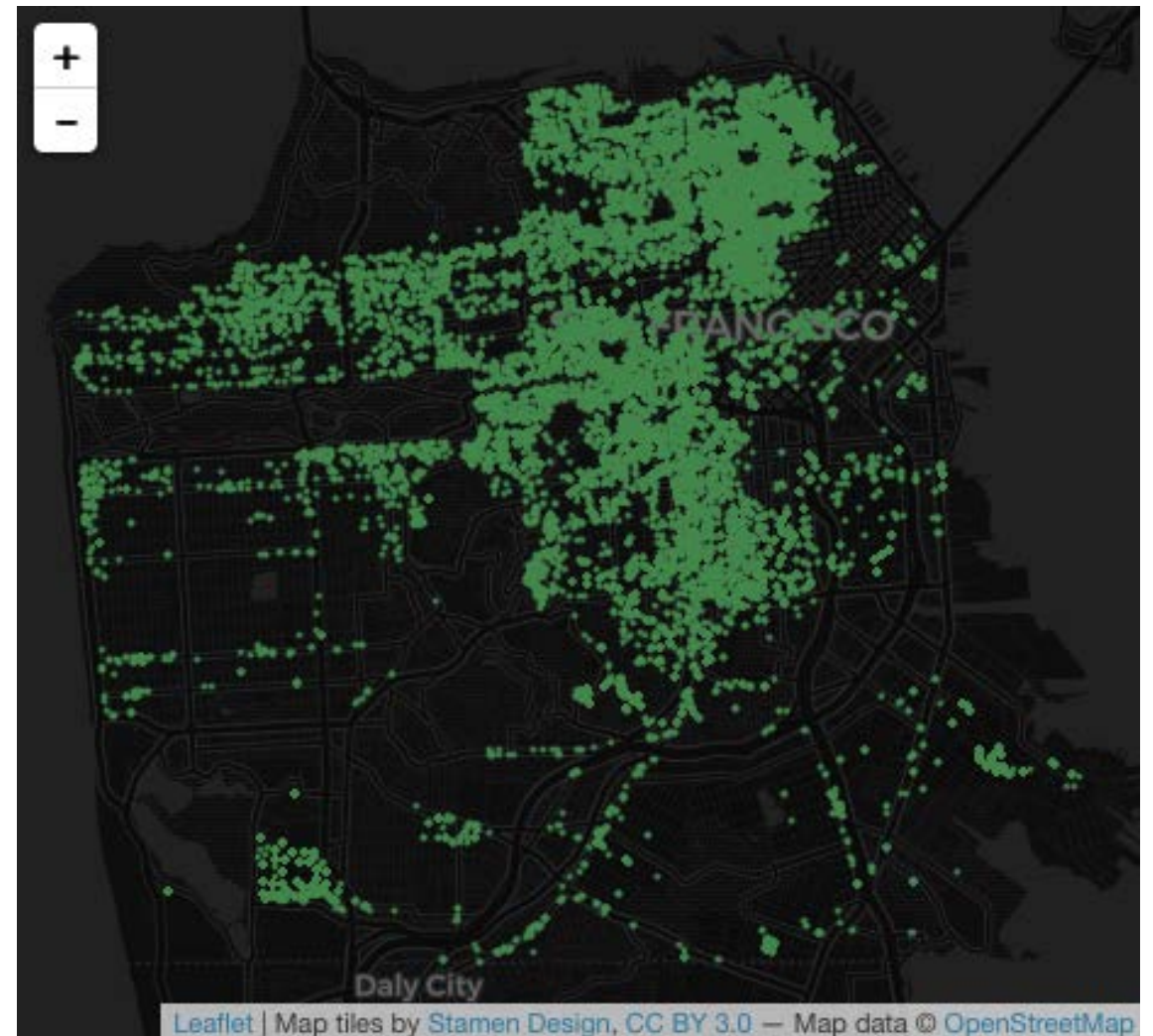
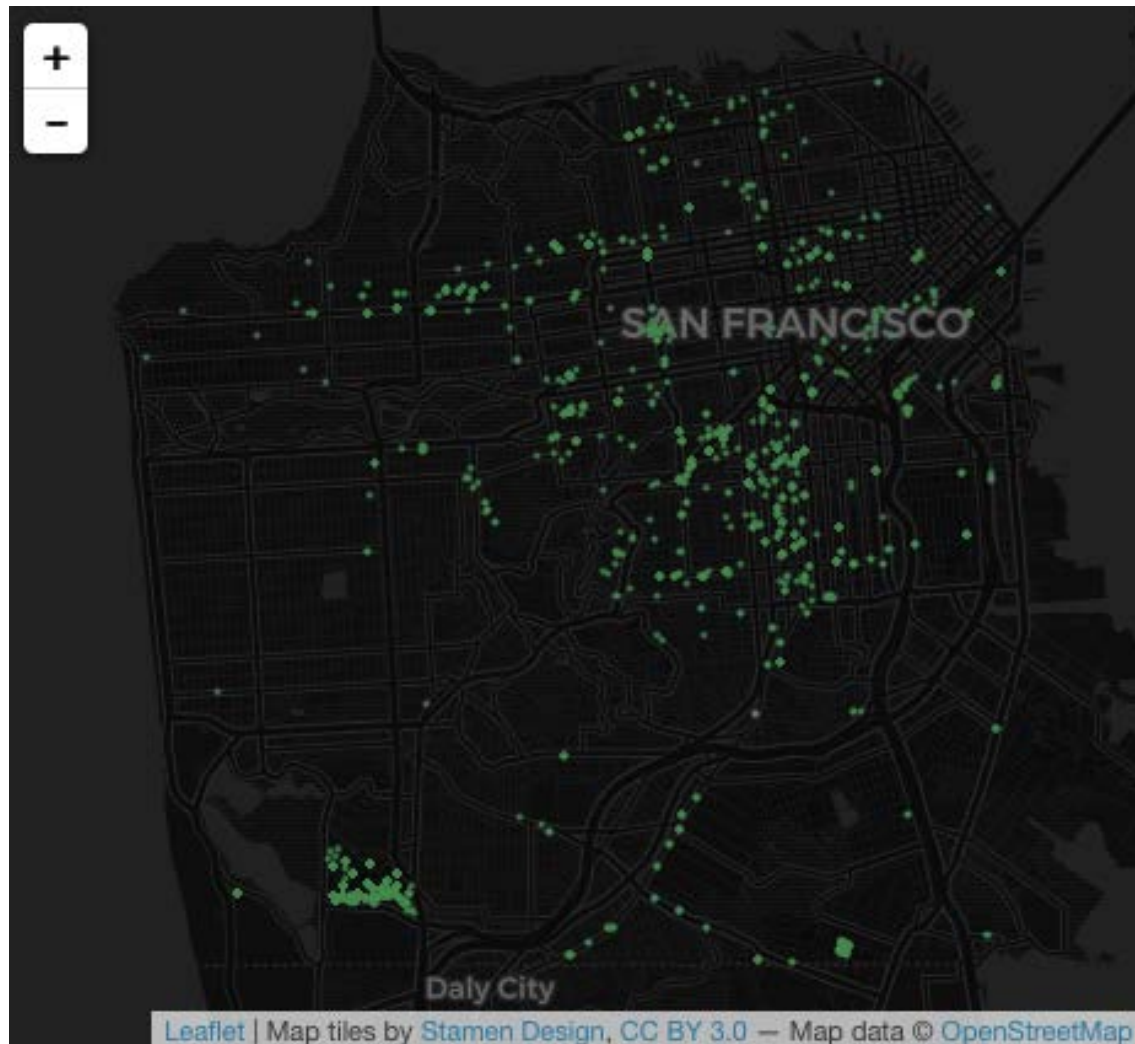
We combined multiple open data sources to generate a list of leads that can be prioritized by various characteristics



# Commercial leads: Before and After **+250%**



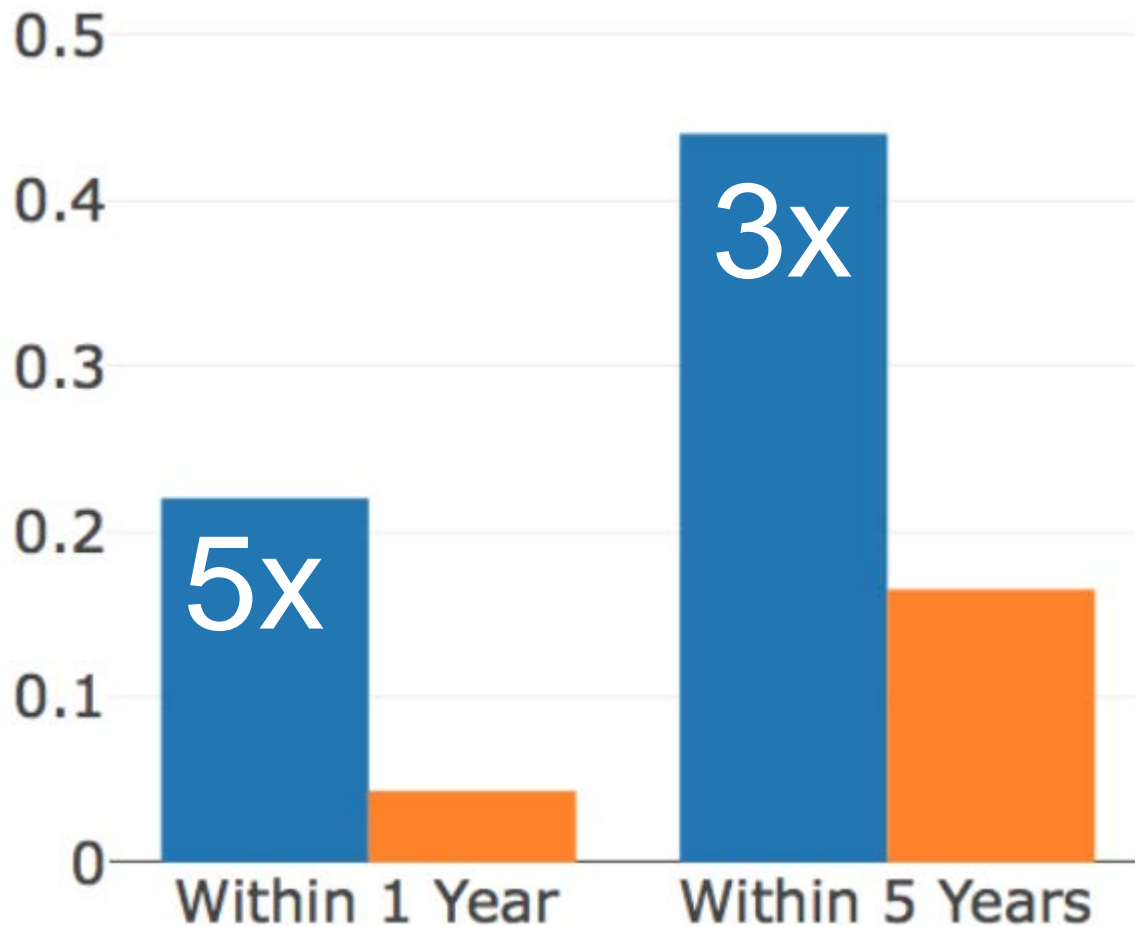
# Multifamily leads: Before and After **+1000%**



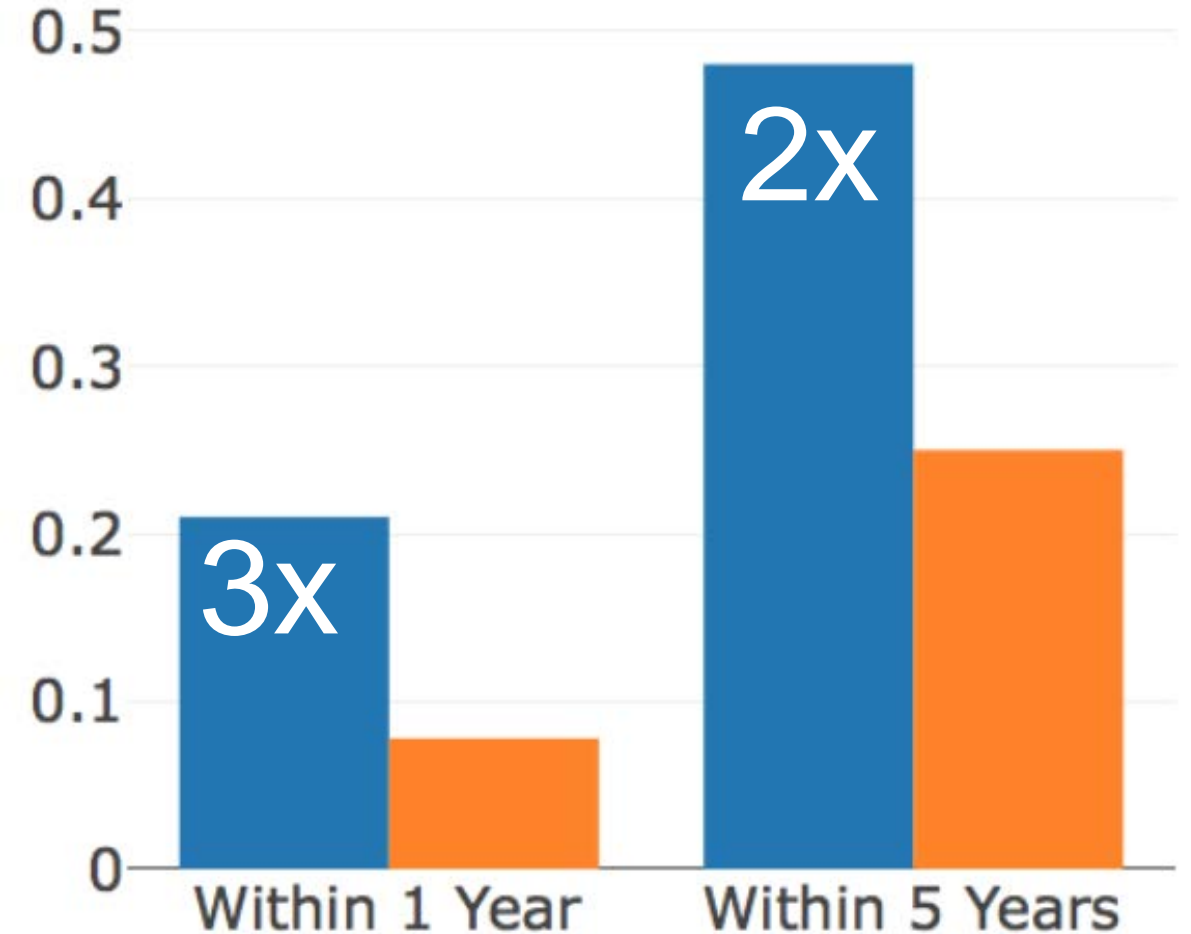
# Buildings with completed projects were much more likely to have applied for various permits

■ Buildings with project ■ Other buildings

% of buildings applying for an **electrical** permit



% of buildings applying for a **building** permit

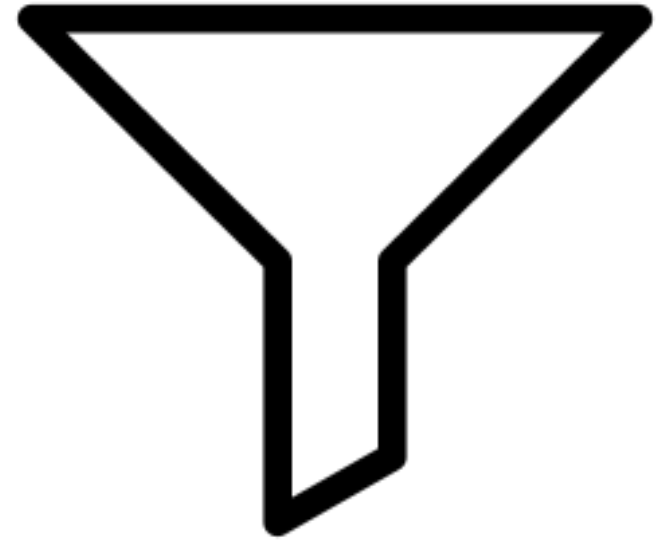




**Service  
Change**



Use list to filter and  
prioritize outreach



- 1 \_\_\_\_\_
- 2 \_\_\_\_\_
- 3 \_\_\_\_\_

Two SFE staffers will use this list to develop a “Customer Dashboard” after taking the PowerBI Course via Data Academy in February

The screenshot shows a web browser window displaying the DataSF website. The page is titled "DataSF | Power BI" and the URL is "https://datasf.org/academy/power-bi/". The navigation menu includes "SFGov", "Coordinator's Portal", "About", "Help", "DataSF", "OPEN DATA", "SHOWCASE", "PUBLISHING", "ACADEMY", "RESOURCES", and "BLOG". Below the navigation, there are links for "Course Catalog", "Course Calendar", and "Instructors".

The main content area is titled "Data Academy Course" and "Power BI". Under the heading "About this course", there is a paragraph: "This course is designed to give you a strong foundation in Power BI and a jump-start on your 1st Power BI project." Another paragraph explains: "Power BI is a powerful, low-cost program that focuses on the entire business intelligence chain: from data wrangling to visualizing to sharing to automation. Most BI programs (such as Tableau) focus primarily on data visualization, which often leaves users having to do significant (often repetitive) 'data wrangling' in Excel before it is ready to import. In contrast, Power BI enables users to clean data and then visualize and share." A third paragraph states: "Power BI also has substantial visualization/sharing/automation abilities allowing for easier exploration of your department's data by your co-workers and the public. Instead of always having to calculate how many X are in Supervisorial District Y, you can now create an embed-able chart on your department website that automatically updates and always shows the most up-to-date estimates."

Under the heading "What you'll learn in this course", there is a list of two bullet points:

- Import and 'data wrangle' data from various sources
- Join multiple data sets for analysis

On the right side of the page, there is a "Course Details" sidebar. It contains the following information:

- Length: Full day (~8 hours) hours
- Price: Free!\*
- Subject(s): Data Management, Visualization
- [View course materials](#)
- \* only open to CCSF employees with supervisor approval
- [Join the waitlist for this course](#)

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**SF Environment**

Our home. Our city. Our planet.

Data,<sup>^</sup> for the love of the City



**THANK YOU**

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