

Areas where to Focus for the Reduction of Electricity Volume Requests

Required Packages

Analysis Thoughts

The request states that the analyst should identify “which areas and request types should Electricity concentrate on to reduce the overall volume of their requests”.

This request can be interpreted in terms of two time frames: 1. The first is the immediate: At this point in time, which areas should be focused on with regards to open requests? 2. The second could be thought of as problem areas - Areas that in general have the most service requests over time. This could potentially be indicative of potential systemic problems in those areas.

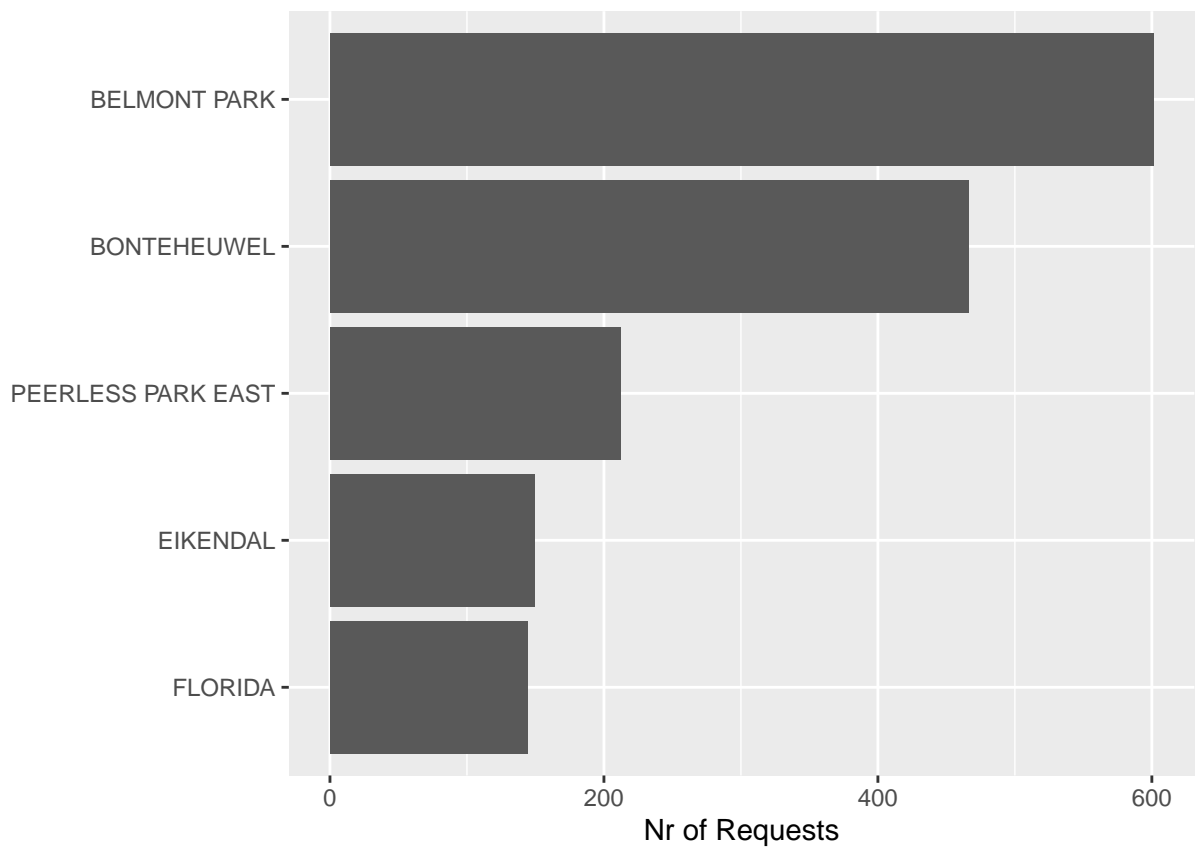
Areas here can be defined as both types of requests and also geographically. As I am also doing the data science projects, I only present a brief written analysis of the my findings.

Analysis of Open Requests on 31 July 2019

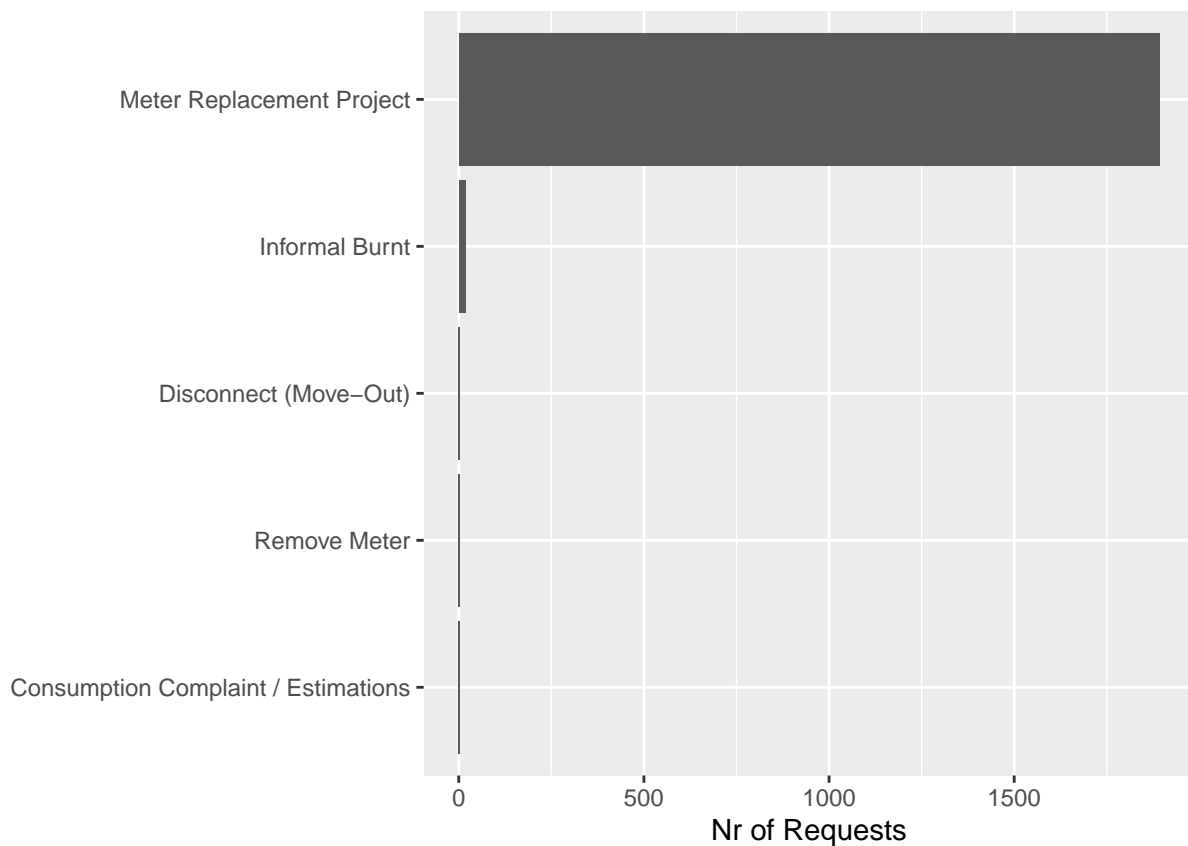
Overall Findings

As of 31 July 2019, Belmont Park, Bonteheuwel, Peerless Park East, Eikendal and Florida had the most open service requests. Almost all open requests relate to the meter replacement project.

Top 5 Suburbs by Nr of Open Requests: 31 July 2019



Top 5 Open Request Types: 31 July



Analysis for the full 3 month period - Systemic problem areas

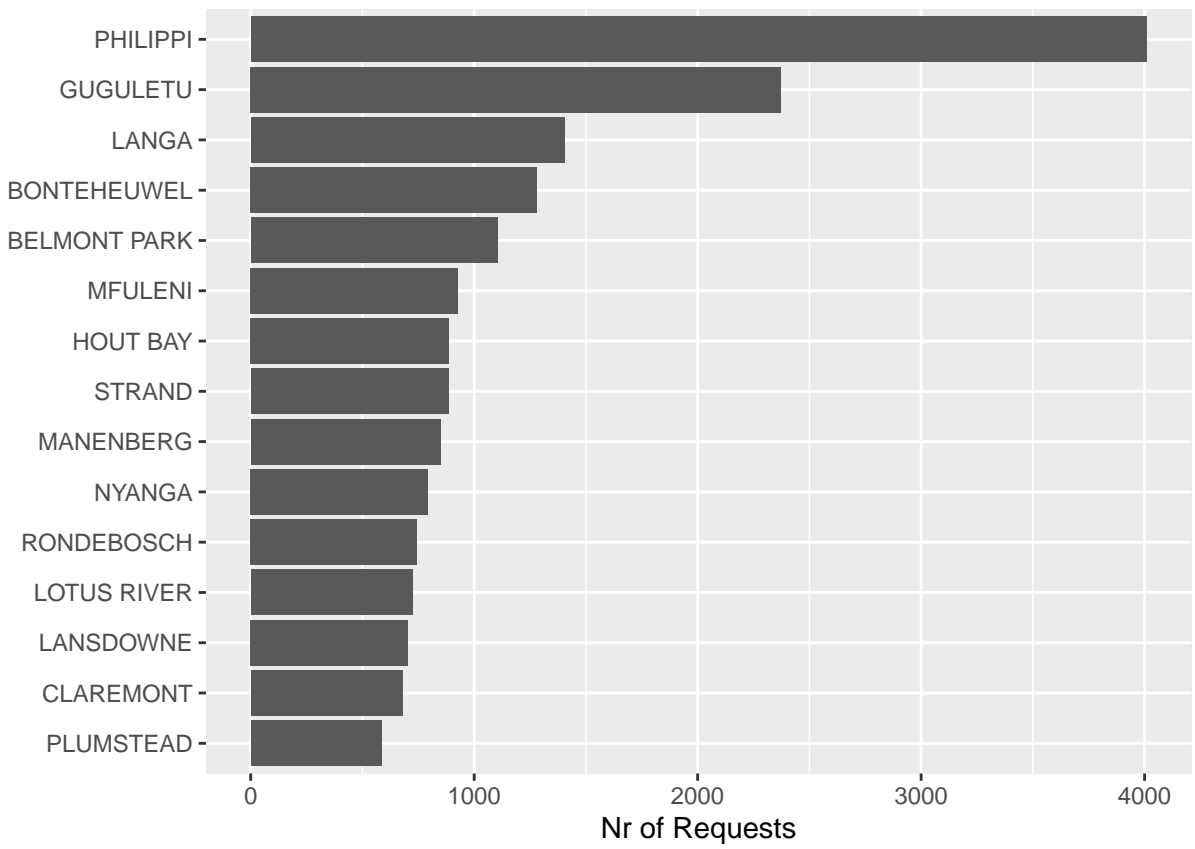
Overall Findings

In terms of suburbs it is evident that over the 3 month period Gugulethu and Langa had the most service requests by a fair margin. In terms of the types of requests (not dependant on the suburb) is street light outages and complaints about no power are the key types of complaints.

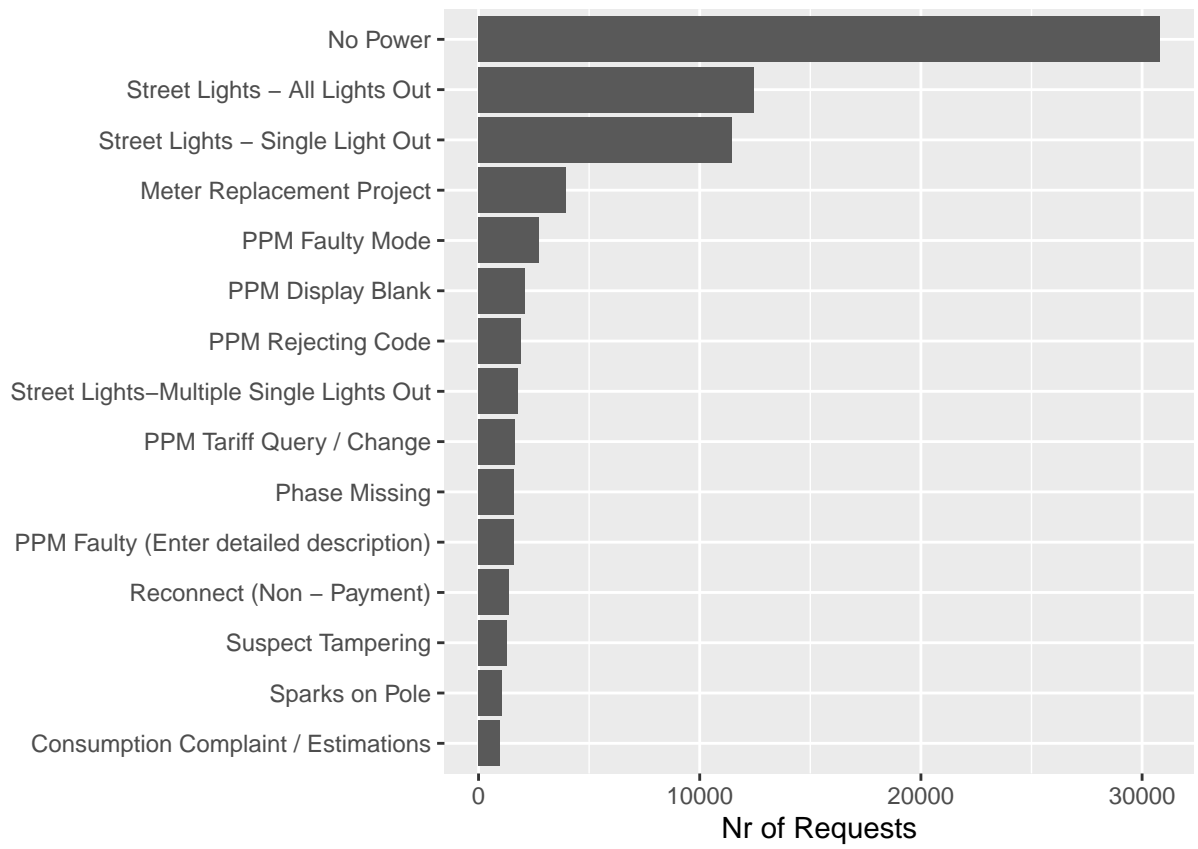
The following graphs show the main requests with the three suburbs with the most requests. “No Power” is the most common request in all three suburbs. One possible explanation is that there was a large outage at a specific point in time which could be influencing the data. But an time series analysis of daily service requests shows that “no power” remains a frequent request type and it is reported at a much higher daily rate than overall daily average for suburbs in the city. This suggests that the city should focus their efforts on Gugulethu and particularly Philippi with relation to power outages.

The following graphs highlight the top suburbs in terms of service request volume and also the most frequent types of requests. It starts with an overall focus after moving to a focus on the suburbs with most requests.

Top 15 Suburbs by Requests Volume: 1 May - 31 July

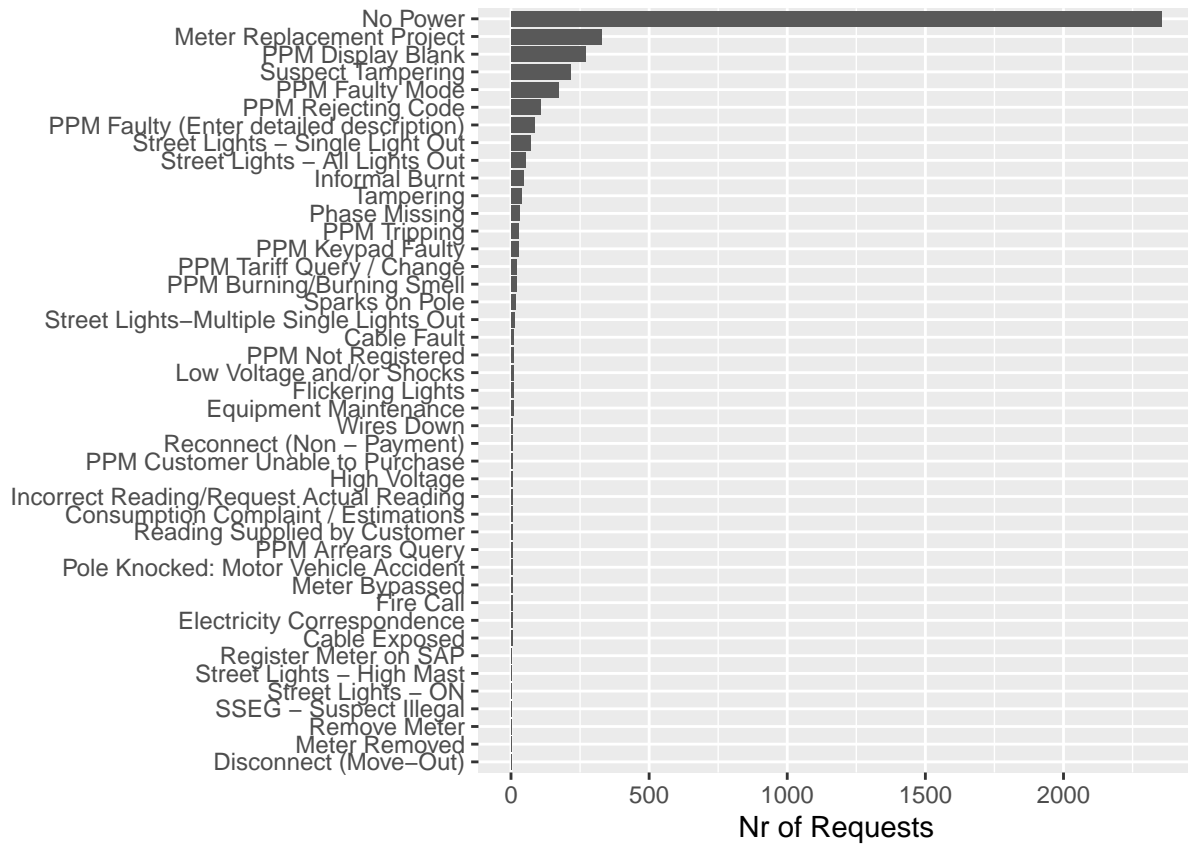


Top 15 Requests by Volume: 1 May - 31 July

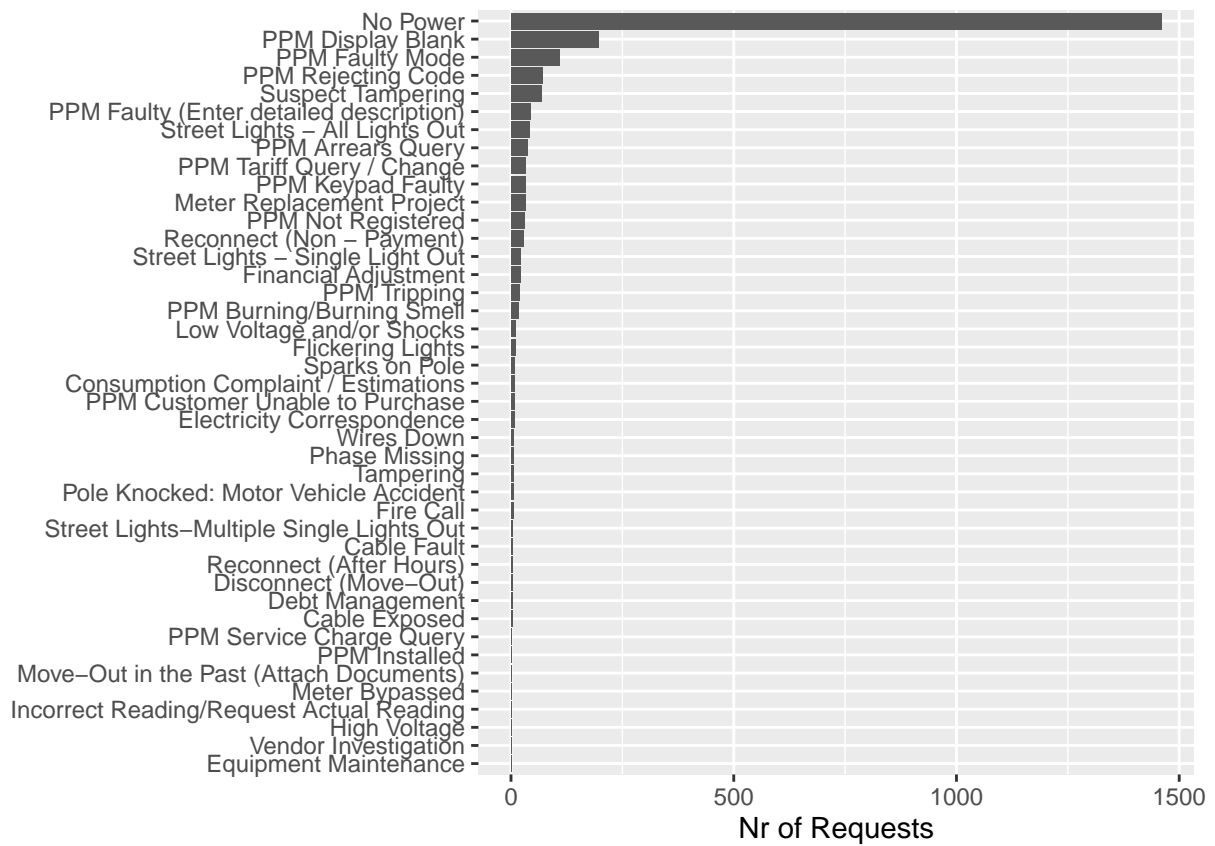


Requests Types in Areas with Most Service Requests

Philippi



Gugulethu



Number of Daily Power Outages Service Requests

