



# DATA REQUIREMENTS & 3<sup>RD</sup> PARTY DEVELOPERS

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# Introduction

- Anbaric background
  - transmission
  - microgrid
- focus on mid-stream assets
- understanding distribution system planning critical for successful projects



# Data needs

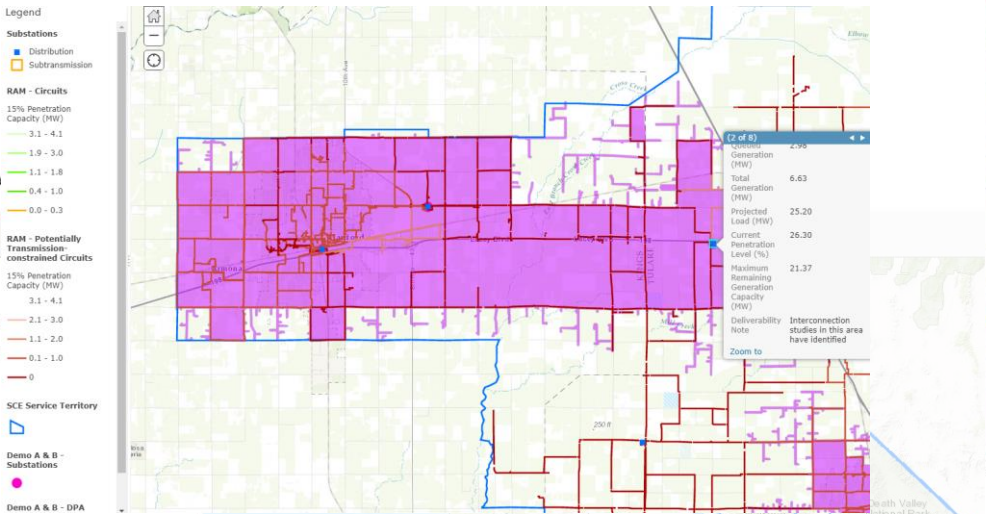
- same data ISO provides on transmission system
- raw data are key
- additional helpful GIS & customer data

- 8760 (prior three years)
  - load
  - power factor
- distribution system data
  - one-line diagram (conductors, impedances...)
  - GIS of one-line
  - feeder/bank data
    - capacitor/voltage regulator settings
    - forecast
- DER mapping
- load flow models
- customer data
  - ICAP by location
  - load characterization/demographics

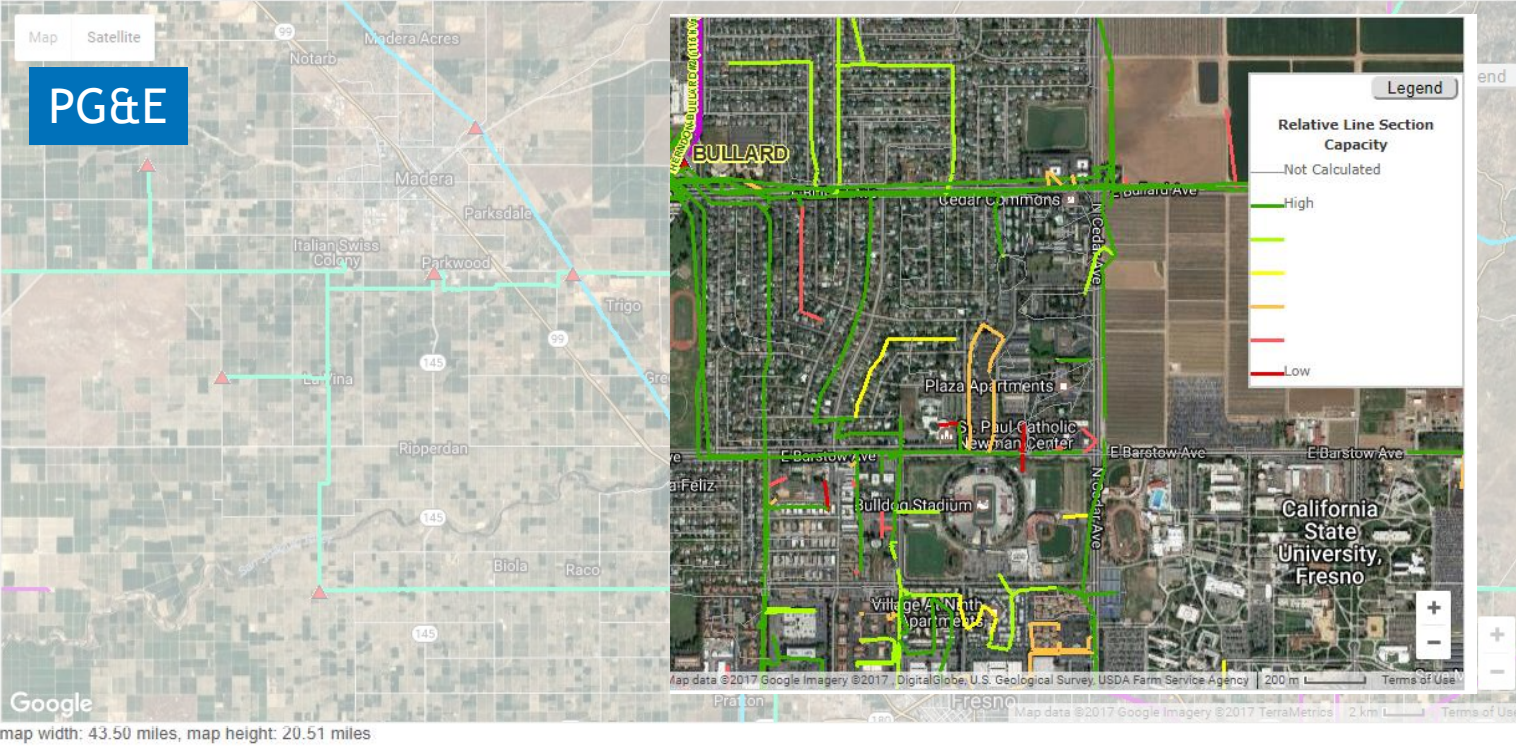
# Three models for utility data access in US

- CA model
  - open access
- NY model
  - financial data service
- IL model
  - registered 3<sup>rd</sup> party (market monitor for the commission - mostly technical)

# California



SCE



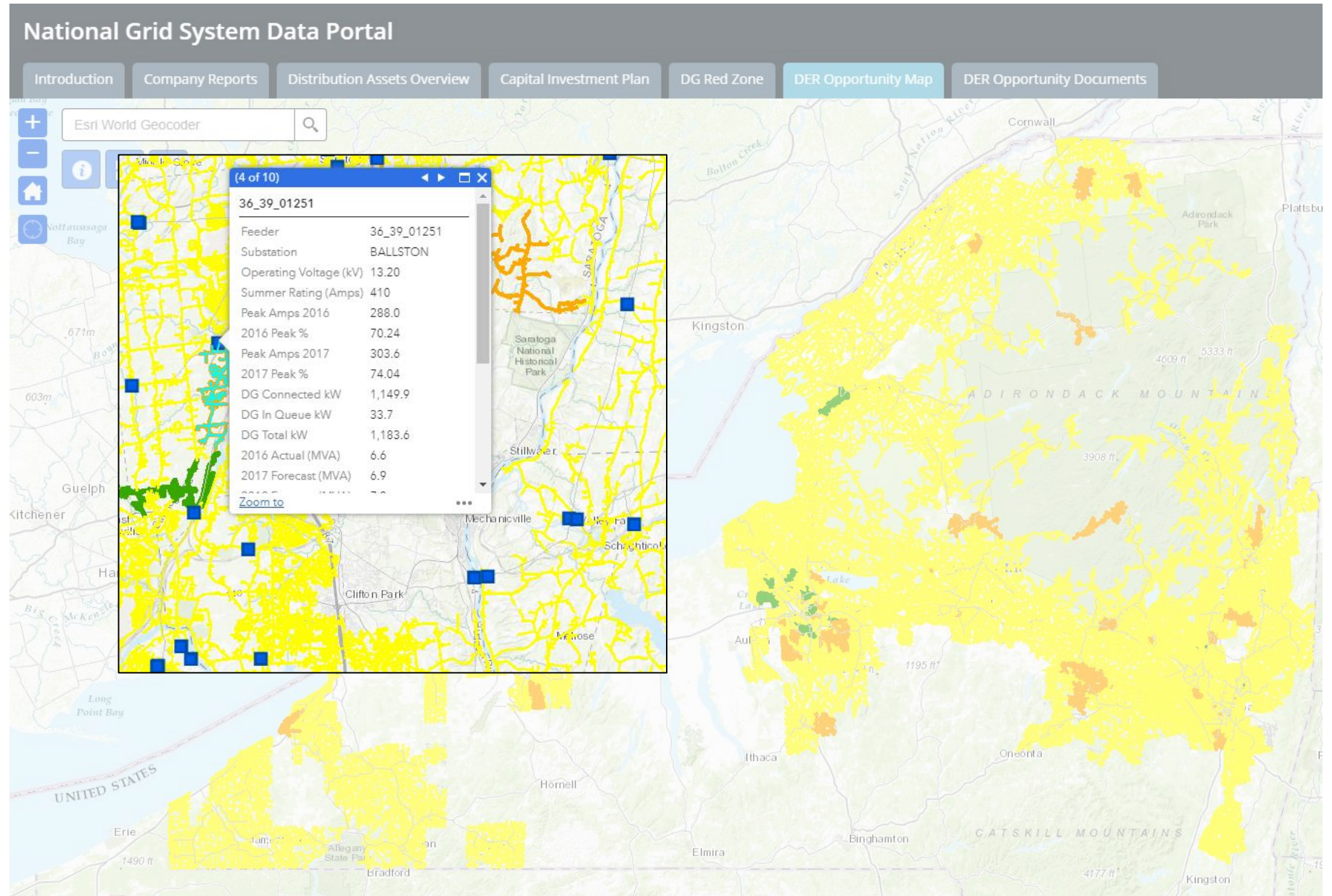
Enter Address

Go

- ☒ Distribution Lines
- ☒ Substations
- ☒ Transmission Lines

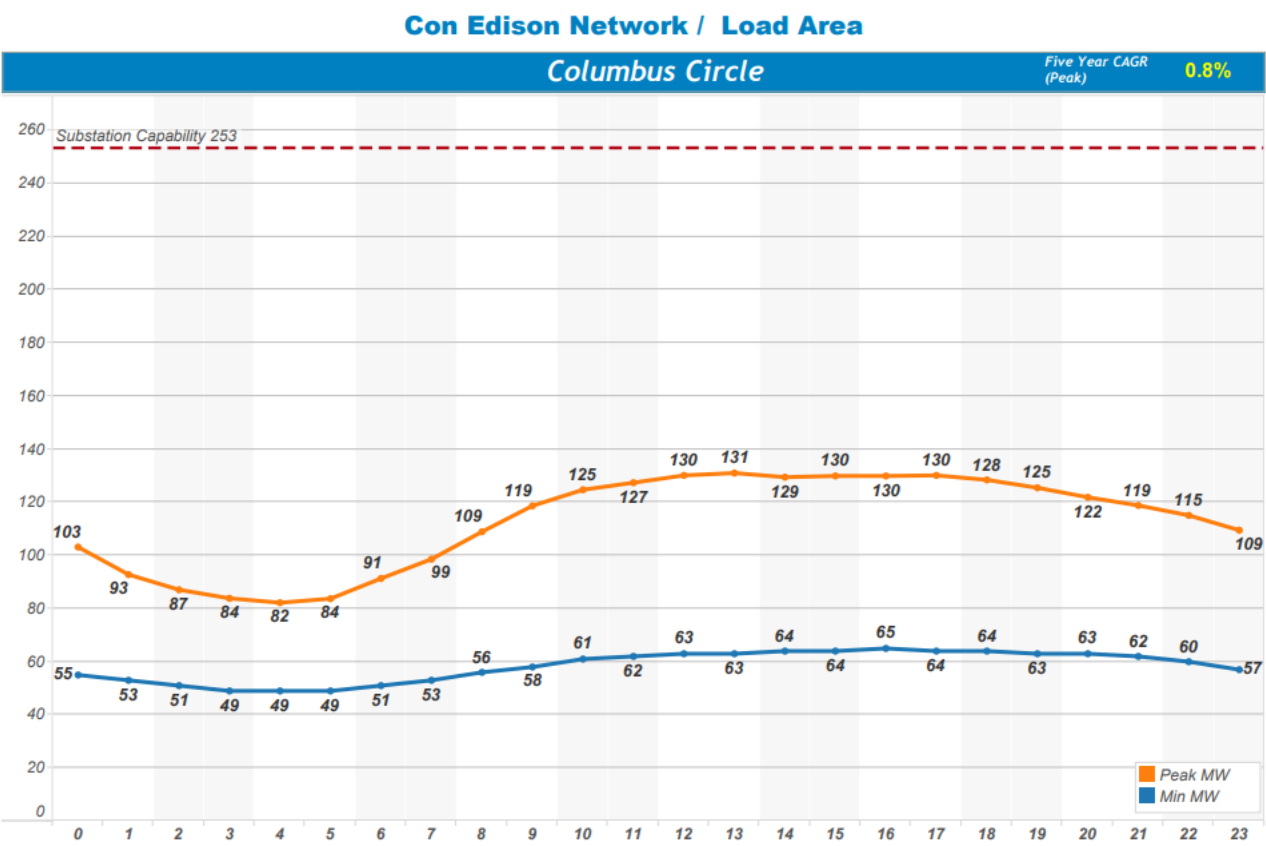
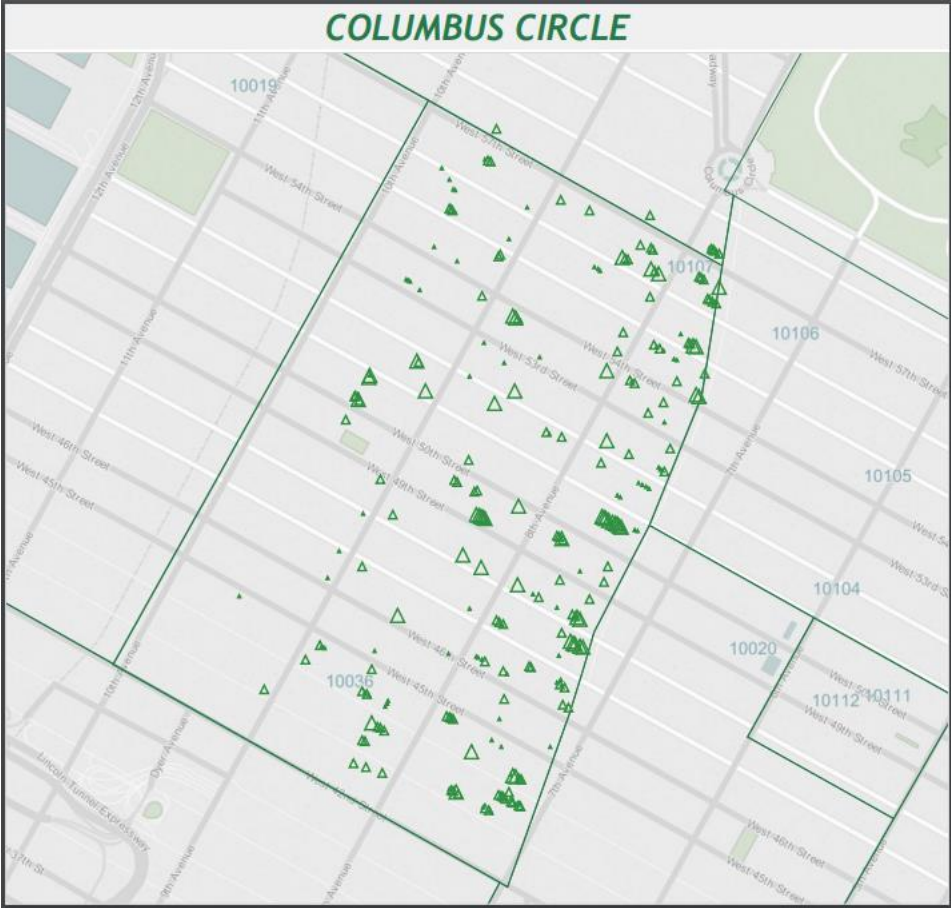


# National Grid



<http://ngrid.maps.arcgis.com/apps/MapSeries/index.html?appid=4c8cfd75800b469abb8febca4d5dab59&folderid=8ffa8a74bf834613a04c19a68eefb43bf>

[http://ngrid-ftp.s3.amazonaws.com/DSIP/Docs/NG\\_System\\_Information\\_Portal\\_Online\\_Guide\\_v2.pdf](http://ngrid-ftp.s3.amazonaws.com/DSIP/Docs/NG_System_Information_Portal_Online_Guide_v2.pdf)



# Best practices & challenges

- good practice

- provide data access as “distribution system version of ISO data”
- avoid oppressive data insurance policy requirements

- challenges

- managing utility customer privacy
- integrating customer sited resources into utility distribution planning models (reconciling utility and developer system modeling results)
- innovative companies & small developers have difficulty participating in single project NWAs
  - long evaluation time versus short RFP response window
  - data insurance costs