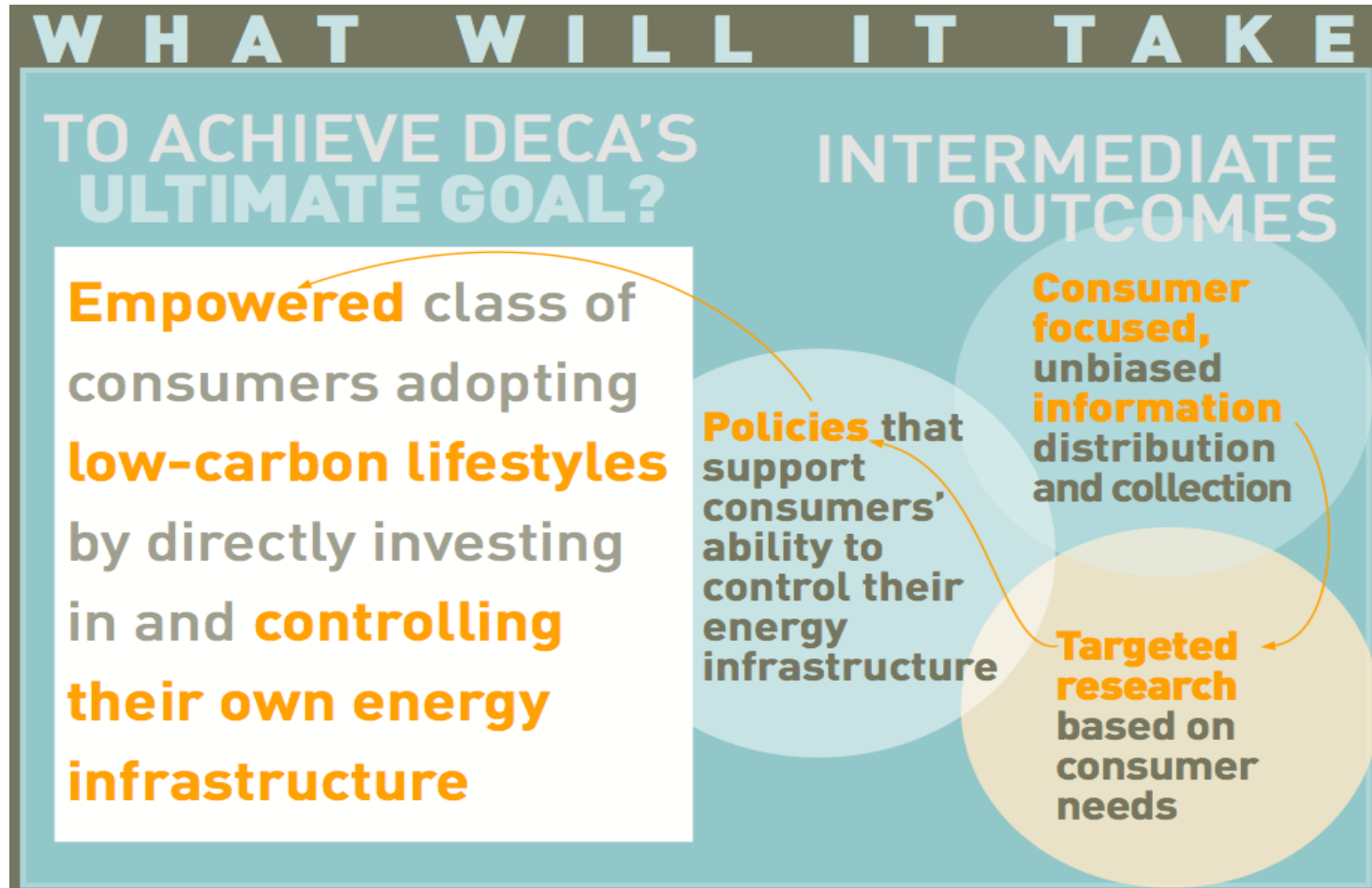


# DECA

## A Policy Study in Data Granularity - The Example of DECA's SPOOL Product

CPUC Energy Data Center Workshop  
January 16, 2013

DECA exists to empower a transformative class of residential and small commercial customers through its provision of customer services, policy advocacy, and research.



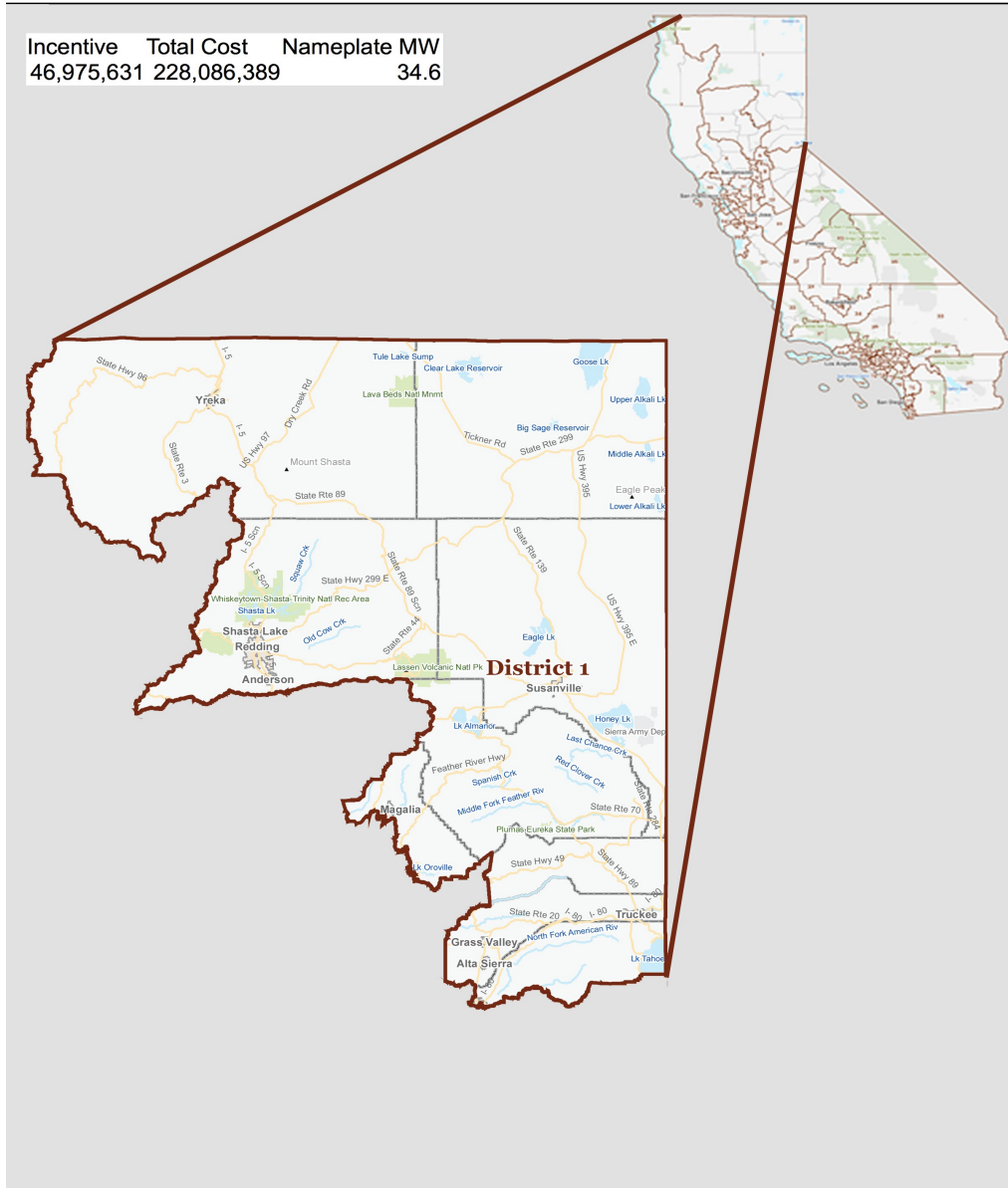
# DECA's SPOOL Resource

- **Augments California Solar Statistics/CSI and muni DG penetration data with a variety of political boundaries and other geospatial data**
  - **Acceptable level of geographic granularity**
  - **Diversity of subject areas**
    - **Residential/Commercial**
    - **Size of system**
    - **Type/size of subsidy**
  - **Regularly updated, fresh data**
  - **Can be Integrated into multiple policy spheres**

# SPOOL Output Example

## California State Assembly District 1

Incentive	Total Cost	Nameplate MW
46,975,631	228,086,389	34.6



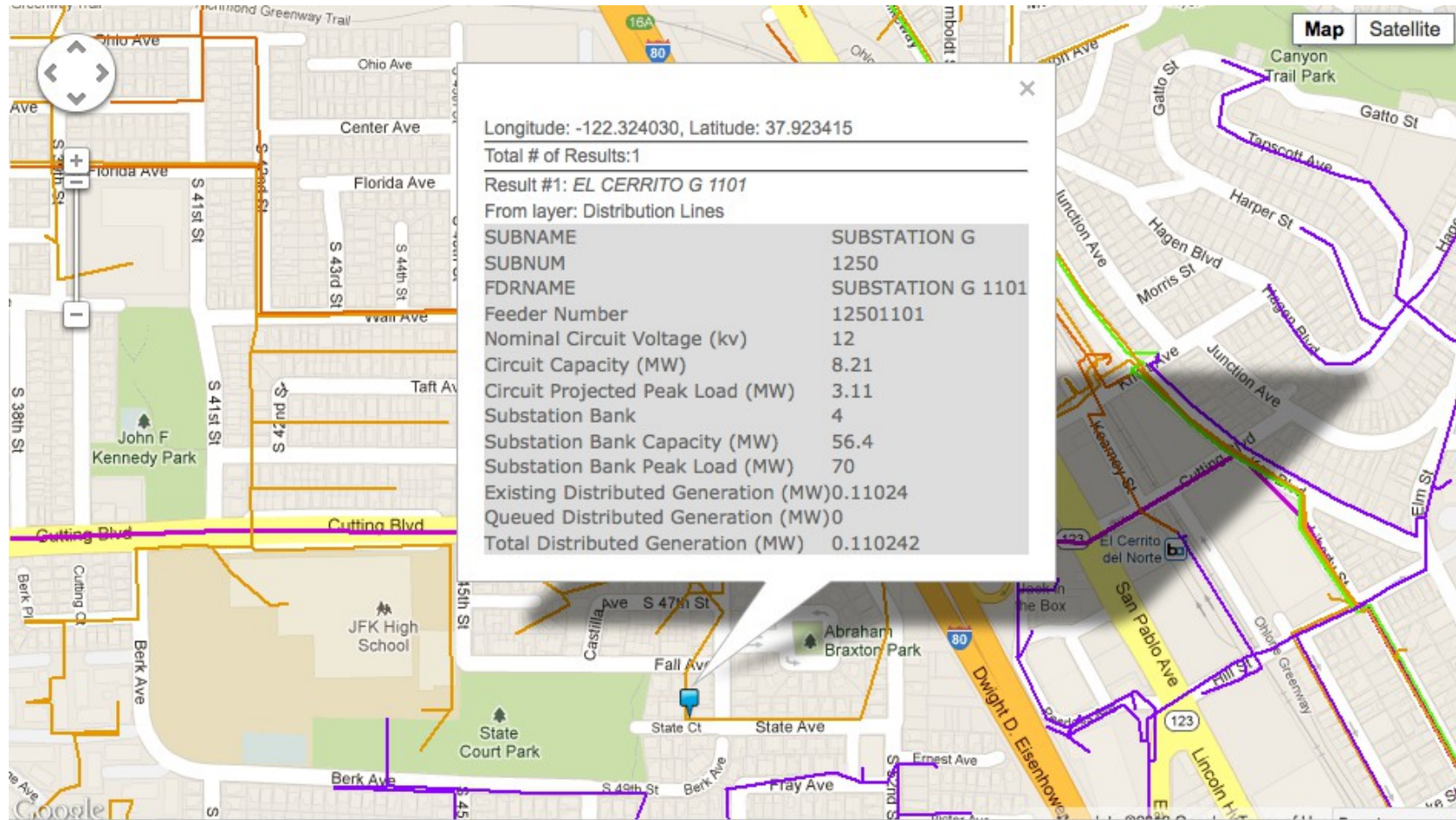
# The SPOOL DG dataset is rich...

- Location
- Size
- Customer type
- Installer, 3<sup>rd</sup> party info
- Equipment info
- Cost
- Online/cancellation date

...but key data remain just out of reach

- Integration with procurement planning process
- Calculation of wholesale market prices
- Aggregation with DR and EE data

# Really, just out of reach.



Feeder-line and substation information from the Renewable Auction Mechanism maps

# Of course, the use of this data is subject to limitations...

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# The Result Is Bad Public Policy

- Preservation of inefficient program silos
- Failure to treat load as a part of the solution
- Creates undue reliance on traditional generation
- Disadvantages policy makers
- Prevents integrated policy solutions
- Results in higher energy and capacity prices
- Slows or prevents meeting environmental goals
- Great for consultants
- A win for the status quo!



# The Case for Feeder-Level Integrated Procurement Analysis

- Allows for quantifiable aggregation for ISO system modeling
  - VARs from inverters
  - Localized EE and DR information
  - More renewables integration options
- Identifies distribution bottlenecks that limit DG
  - Best bang for the buck of distribution network upgrades
- Enables targeted DG procurement based on avoided cost
  - Capacity
  - Energy

# Is feeder level information the solution?

**No.**

# **An Integrated Policy Solution Requires Customer-by-Customer Granularity**

- Load data**
- Program participation details across all programs**

**Feeder, zip5, zip9, CBG, or any other aggregation is inadequate**  
**- Consider the lowly lightbulb**

**Aggregatable granular data is essential for good policy making**

- Would be incredibly wasteful of the system to not include at least 15 minute granularity**

**Protecting individual customer data can be achieved through anonymization and a geographic density filter**

# A Potential Strawman for Consideration

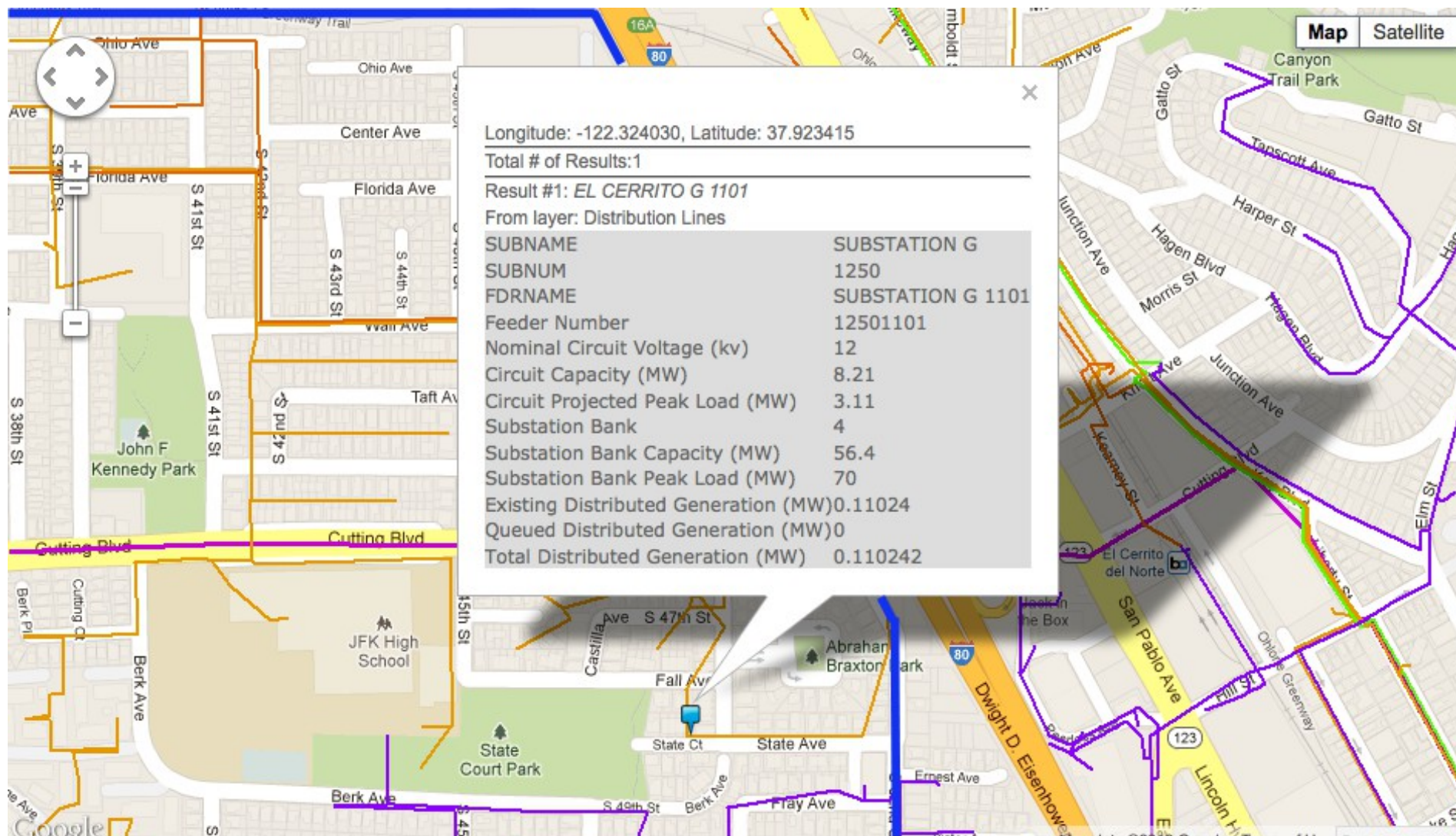
**A permissions-based strategy that couples anonymization and an obscurity threshold**

- **Permissions-based: different level of access to data based on the requesting entity**
- **Anonymization: replacement of a data field that can be used to discover customer identifiable information with a proxy which cannot**
- **Obscurity threshold: prevents one market participant from being able to determine another market participant's characteristics by subtracting a known usage level from a sum of two usage levels**
  - **CPUC has used a threshold of three users in past proceedings.**

# Three Permission Levels for Data Access

- **Public Network Model**
  - **Freely available via API**
  - **Requires application of an obscurity threshold filter based on customer class within a known geography**
  - **Anonymized unique record identifier based query elements**
- **Housing Stock Details**
  - **Available only via Commission approved EULA/NDA**
  - **Provides aggregated usage and program participation data based on user submitted location data and query elements**
- **Full Network Model**
  - **Available only via Commission approved EULA/NDA**
  - **Not permitted for commercial purposes**
  - **Excludes names, social security numbers, etc.**

# A Thousand or Two Words on ZIP Codes



Renewable Auction Mechanism map with feeder lines and zip code boundary

# Thank You

Aram Shumavon  
[a.shumavon@d-e-c-a.org](mailto:a.shumavon@d-e-c-a.org)

D E C A

Distributed Energy Consumer Advocates