



Making the Most of Michigan's Energy Future

Customer Education and Participation

Session 2: Data Privacy, Sharing, and Customer Consent

*The meeting will begin shortly at 1:01 pm
to allow people to join.*

June 22, 2021

1:00PM – 3:30 PM (Eastern)



MPSC

Michigan Public Service Commission



Making the Most of Michigan's Energy Future

Customer Education and Participation

Kayla Gibbs

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**Resource Optimization and
Certification**

Michigan Public Service Commission

Danielle Rogers

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Smart Grid

Michigan Public Service Commission



MPSC

Michigan Public Service Commission

Agenda

Agenda Items		
1:00 5 min	Welcome/ Housekeeping	Kayla Gibbs, MPSC Staff
1:05 10 min	Michigan Data Privacy Tariffs and Billing Rules	Patrick Hudson, MPSC Staff
1:15 30 min	Life Cycle of Data	Bradley Bammert, Consumers Energy Jason Pittman, DTE Energy
1:45 35 min	Data Privacy, Sharing, and Customer Consent: Lessons Learned and Best Practices	Michael Murray, Mission:data
2:20 5 min	Break	
2:25 15 min	Aggregated and Anonymized Data: Similarities & Difference and Regulatory Opportunities & Barriers	David Littell, RAP
2:40 45 min	Panel: Data Aggregation and Anonymization Methodologies and Best Practices	Moderator: David Littell, RAP Andrew Barbeau, Accelerate Group Carmen Best, Recurve Sarah Moskowitz, IL CUB Chris Villarreal, Plugged In Strategies
3:25 5 min	Closing Statements	Danielle Rogers, MPSC Staff
3:30	Adjourn	



Making the Most of Michigan's Energy Future

Customer Education and Participation: Welcome and Housekeeping



Kayla Gibbs

Resource Optimization and Certification
Michigan Public Service Commission

June 22, 2021

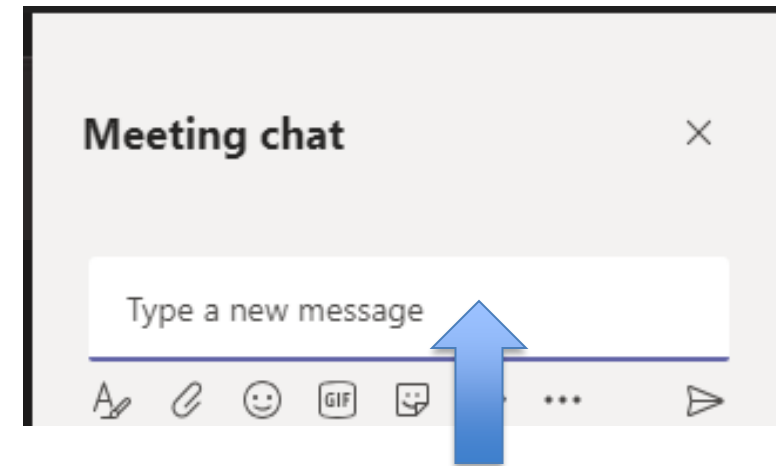
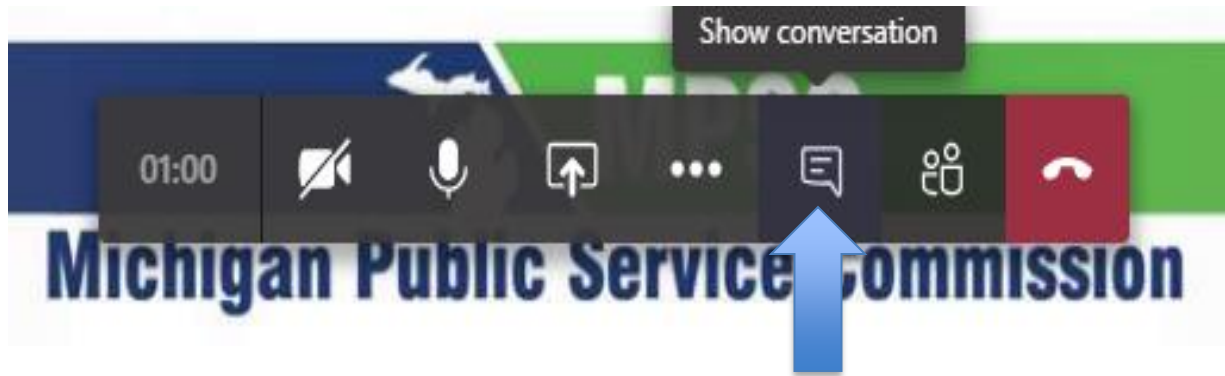


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Housekeeping

- This meeting is being recorded
- Recording and slides posted on [workgroup website](#) in about a week
- All audience members will be muted
- Please type questions into the chat box
 - To access chat box:



- Staff will ask chat box questions during Q&A

Housekeeping, cont.

- During the meeting, if clarification of your question is needed, we will ask you to unmute.
 - To unmute:
 - Phone: Press *6
 - Teams: Click mic button
 - Please mute yourself again after your clarification.
- Chat box may note when audience members enter/exit
 - These notices are automatic
- If Teams via web browser is not working, try a different web browser.
 - All work except Safari

Workgroup Topics and Timeline

- May 25, 2021: Data Access Session
- June 22, 2021: Data Privacy, Sharing, and Customer Consent
- July 20, 2021: Customer Engagement in Commission-related Activities: Opportunities and Barriers
- August 18, 2021: Creating More Equitable Outreach and Access to Utility Programs and Offerings
- September 2021***: Customer Education and Participation Topic
- Report writing will take place finalizing the stakeholder session.
- Report will be provided to stakeholders for feedback.
- No later than February 25, 2022, report filed to the docket

** September date and specific topics TBA



Making the Most of Michigan's Energy Future

Customer Education and Participation: Michigan Data Privacy Tariffs and Billing Rules



Patrick Hudson

Smart Grid Section Manager
Michigan Public Service Commission

June 22, 2021



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Michigan Data Privacy Tariffs & Billing Rules History

- 2012, Staff worked with the Vermont Law School with a model data privacy/accessibility tariff
- 2013, Docket [U-17102](#) addressed Data Privacy & Accessibility, *“customer data privacy is a priority for customers, energy providers, and the Commission”*
- Order in U-17102 directed Consumers Energy and DTE Energy to file their data privacy/accessibility tariffs - order provided a tariff model

Michigan Data Privacy Tariffs & Billing Rules History

- 2014, Staff and utilities began discussions about revised billing rules to address data privacy/accessibility for all regulated utilities
- Revised billing rules discussions addressed customer data accessibility, including authorized third-party data accessibility on behalf of the customer, and ease of data access
- 2017, [U-18120](#) rulemaking docket revised the [Consumer Standards and Billing Practices for Electric and Natural Gas Service](#), Section R 460.153 applied to all rate regulated utilities

Michigan Data Privacy Tariffs & Billing Rules History

Michigan.gov

E-DOCKETS CONTACT US Q SEARCH

LARA
MPSC

ABOUT THE MPSC

COMMISSION ACTIVITIES

CONSUMER INFORMATION

REGULATORY INFORMATION

MPSC / REGULATORY INFORMATION

Administrative Rules / Laws

LAWS

- [Michigan Constitution - 1963](#)
- [Public Utilities Laws 460 MCL](#)
- [Oil, Gas and Brine 483 MCL](#)
- [Telephone, Telegraph and Radio 484 MCL](#)
- [Michigan Telecommunications Act](#)
- [Uniform Video Services Local Franchise Act](#)
- [Emergency 9-1-1 Service Enabling Act](#)
- [Metropolitan Extension Telecommunications Rights-Of-Way Oversight \(METRO\) Act](#)
- [Home Solicitation Act](#)
 - [Do Not Call List PA 612 of 2002](#)
- [Gas Storage Laws](#)

GENERAL

- [Code of Conduct R 460.10101 - R 460.10113](#)
- [Consumer Standards and Billing Practices for Electric and Natural Gas Service R 460.101 - R 460.169](#)
 - [Consumer Standards and Billing Practices for Electrical and Gas Residential Service R 460.101 - 460.169 \(Prior to December 11, 2017\)](#)
 - [Billing Practices Applicable to Non-Residential Electric and Gas Customers R 460.1601 - 460.1640 \(Prior to December 11, 2017\)](#)
- [Medical Certification Form Template R 460.130a](#)



Michigan Data Privacy Tariffs & Billing Rules History

- December 2017, docket [U-18485](#) established
- *“Each electric and natural gas utility shall file a data privacy tariff in this docket by June 8, 2018”*
- Commission approved the filed data privacy/accessibility tariffs

More Recent Developments 2018-2021



2018 Issue Brief



Issue Brief

Customer Data Access & Privacy

1. What is customer data?

Utilities may collect **three kinds** of information from customers that constitute customer data:

- **Customer Account Information** – Individually identifiable information, such as name, address, contact information, account number, payment history and amount billed. It also includes programs the customer participates in such as shutoff protection, payment assistance or energy efficiency programs.
- **Customer Energy Usage Data** – Customer-specific energy use data, typically measured in kilowatt-hours, as collected from a meter.
- **Customer Personal Data** – Specific information collected or known by the utility to establish an account, such as name, address, birth date, Social Security number, bank accounts, driver's license number, credit reporting

Michigan Data Privacy Tariffs & Billing Rules 2018-2021

- 2018, Commission directed staff to conduct a stakeholder session exploring data accessibility further
- 2019, [Stakeholder session](#) was held
- 2019, Staff filed [a report](#) addressing the status of data accessibility
- 2020, [order filed in U-18485](#) addressing Code of Conduct & data privacy/accessibility issues
- 2020, [order filed in U-18485](#) that approved revised data privacy and accessibility tariff language. The order adopts certain information sharing procedures followed by regulated utilities filing revised data privacy and accessibility tariffs

Michigan Data Privacy Tariffs & Billing Rules 2018-2021

- Current utility data privacy/accessibility tariffs on the MPSC website under “[Electric Rate Books](#)”
- [Consumers Energy](#)
- [DTE Electric Company](#)
- [Indiana Michigan Power Company](#)
- [Consumers Energy’s website](#)
- [DTE Electric Company’s website](#)
- [Indiana Michigan Power Company website](#)

Michigan Data Privacy Tariffs & Billing Rules

KEY ISSUES

- R 460.153 (2) (g) language in billing rules addressing *“clear instructions”*, *“timely manner”*, *“readily accessible format”*
- R 460.102 - Definitions language in billing rules addressing *“personal data”*, *“primary purpose”*, *“secondary purpose”*, *“aggregate data”*



Michigan Data Privacy Tariffs & Billing Rules

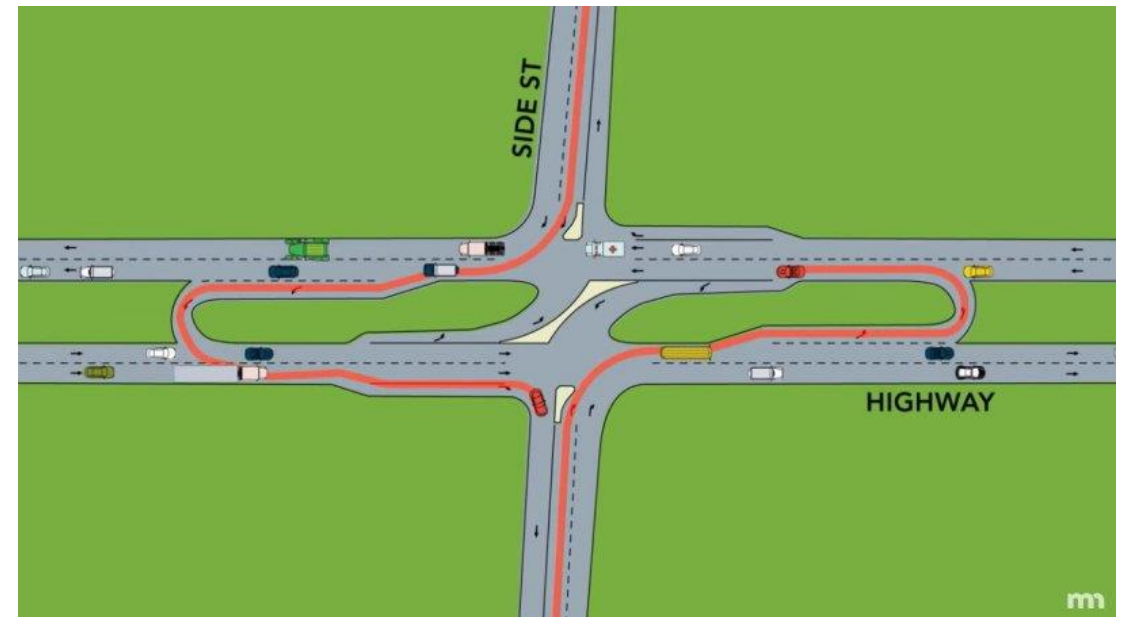
KEY ISSUES

- “Potential Next Steps in MI” and “Conclusion” portions of Staff’s 2019 report
- 1) utility performance with the implementation of the new and/or revised data privacy/data accessibility tariffs that were filed
- 2) customer feedback regarding data accessibility including accessibility for their authorized third parties
- 3) lessons learned from neighboring Midwest state Illinois based on its advanced activity with data accessibility policy and implementation
- 4) customer consent details for authorizing third-parties, including electronic signature options
- 6) policies and parameters addressing aggregated and anonymized data
- 7) determining data ownership rights (utility versus customer)
- 8) hosting additional data accessibility discussions with a wider range of stakeholders, including renewable energy installers and various energy service providers

Michigan Data Privacy Tariffs & Billing Rules

KEY ISSUES

- Data Privacy/Accessibility intersection:
 - Code of Conduct
 - Demand Response
 - Distributed Energy Resources
 - Energy Waste Reduction
 - Equity in Rendered Services



Data Sharing and Privacy

June 22, 2021



Overview

- Customer Data – Privacy Nutrition Label
- Customer Access to Data
- Information Governance
(Retention and Disposal of Data)
- Security

Customer Data



Customer Communications

Name

Service and Billing Address

Phone Number

Email Address



Billing & Payment

Payment Data*

Customer Bills

State ID

Social Security Number



Website Cookies

Website Usage Analysis and
Session Information



Company Programs

Program specific data when
participating (e.g. Active Duty Military Shutoff
Protection)



Energy Consumption Data

Electric Use (e.g. kWh)

Gas Use (e.g. mcf)



Operational Data

Equipment and Location Based ID
Numbers (e.g. Premise ID)

Threat of Violence/Danger Tags
Outage and Meter Events

Customer Access to Data

- Consumers Energy Website via Customer Portal
- Contact Center (Residential: 800-477-5050, Business: 800-805-0490)
- In Writing using instructions provided at [Consumersenergy.com/privacy](https://consumersenergy.com/privacy)

Detailed information was provided to the workgroup on May 25. See [presentations](#).

Information Governance

- Dedicated team to define and enforce policies and standards
 - Business records versus non-business records
 - Required retention schedules
- Data maintained only as long as necessary to provide services and comply with laws/regulations.

Security

- Documented and enforced security policies and standards
 - Continuous Monitoring for Anomalous Activity
 - Penetration Testing
 - Email Phishing Tests and Education
- Dedicated team for incident response
 - Third party incident response support
 - Processes in place to make necessary notifications (e.g. MPSC, customers, etc)



Lifecycle of Data

6/22/2021

DTE collects customer information based on our business relationships, customer use of utility services, and other products we provide

Contact Information, including your name, address, telephone number and email address.

Billing and Payment Information, including your payment data, credit history, driver's license, state ID number and/or Social Security number.

Electric and Gas Usage Data, gathered by our metering systems measured in ccf, mcf, therms, dth, kW, kWh, voltage, var and/or any other energy measurement.

Other Personal Information, gathered when you choose to participate in utility programs or services, such as bill payment assistance, shutoff protection, renewable energy, demand-side management, load management and/or energy efficiency.



DTE collects customer information for Primary Purposes



Provide, bill, or collect for regulated electric or natural gas service

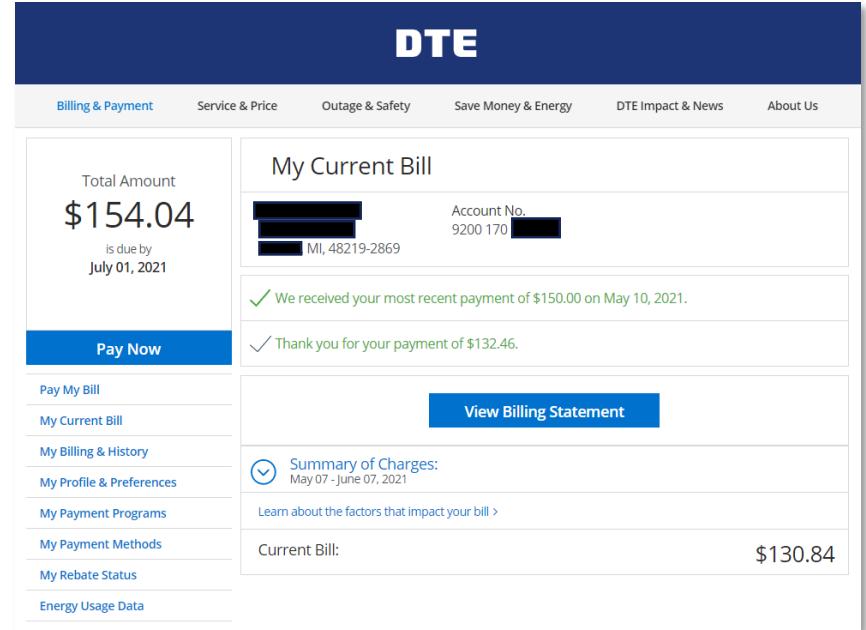
Provide for system, grid, or operational needs

Provide services as required by state or federal law or as specifically authorized in the Company's approved tariff or

Plan, implement, or evaluate, energy assistance, demand response, energy management, renewable energy or energy efficiency programs

Secondary Purpose: Any purpose that is not a Primary Purpose

DTE provides self-service, on-demand options for commonly requested customer data types



DTE works 24/7 to deliver safe, secure, and reliable energy products and services to our customers



An essential part of that effort is protecting our critical facilities, digital infrastructure and sensitive information. This commitment is supported by a dedicated cybersecurity team that drives a culture of security.

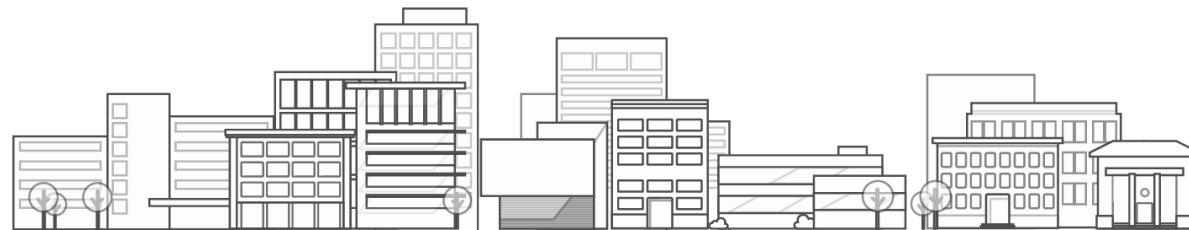
DTE applies a holistic, multi-layered approach to both physical and cyber security to protect our critical infrastructure, sensitive information (which includes customer data), minimize the impact of any breach, and enable a quick recovery should an incident occur.

We incorporate reasonable and best practice protections, in alignment with the National Institute of Standards and Technology (NIST), to prevent and/or minimize the impact of a cyber-attack against our company.

Data Privacy, Sharing and Customer Consent: Lessons Learned and Best Practices



Michael Murray, President
michael@missiondata.io



Overview

1. Data-sharing lessons learned from other jurisdictions
2. History: Fair Information Practice Principles (FIPPs)
3. NC AGO/Mission: data draft privacy and access rule
 - What data is covered
 - Enforcement against “bad actors”



Recap: Four realms of “energy data”

without consent

1. Individual customer data with consent

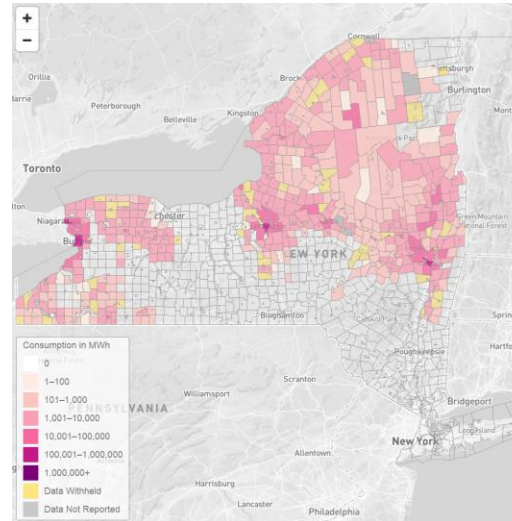
- Usage
- Billing history
- Rate info
- Account info



2. Whole-building usage



3. City/County/State planning



4. Distribution grid data



Lessons Learned



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User experience: What not to do



CUSTOMER INFORMATION SERVICE REQUEST FOR DEMAND RESPONSE PROVIDERS (CISR-DRP)

IMPORTANT INFORMATION FOR CUSTOMERS – BE SURE TO READ FIRST THIS IS A LEGALLY BINDING CONTRACT – READ IT CAREFULLY

Southern California Edison's (SCE's) Rule 25 and its corresponding privacy policies, which can be found at <https://www.sce.com/wps/portal/home/privacy>, generally do not allow for the disclosure of customers' personal information (such as your name, address, phone number, or electric and billing information) to third-parties unless the customer expressly authorizes the disclosure. The purpose of this form is to allow you, the customer, to exercise your right to disclose your personal energy-related information to collaborating Non-Utility Demand Response Providers (DRPs) pursuant to SCE's Rule 24, so that you may obtain Demand Response services. Rule 24 can be accessed at https://www.sce.com/NR/sc3/tm2/pdf/Rule_24.pdf. This form may be used for authorization to release Bundled Service, Community Choice Aggregation (CCA) Service, Community Aggregator (CA), and Direct Access (DA) Service customer's personal energy-related information. In some cases two different DRPs may collaborate to help a customer obtain Rule 24 Demand Response services. Accordingly, this form allows for disclosure of your information to both a Primary DRP and an optional Secondary DRP. Alternatively, each DRP may submit its own CISR-DRP form with your consent to receive personal energy-related information about you. Once you authorize access by the DRP(s) to your personal energy-related information, you are responsible for ensuring that the DRP(s) safeguards this information from further disclosure without your consent. Authorization for SCE to release your information under Rule 24 is a separate agreement from the one you may have or may make with the DRP(s) for its services.

This form also grants the DRP(s) the ability to request that SCE make limited changes to the SCE electric meter(s) serving your Service Account(s), as specified in Section C below.

I, (Customer),

Customer Name According To SCE Records		
Contact Name (if different from above)	First Name	Last Name
E-Mail Address	Phone Number	

(You are required to provide at least your e-mail or phone number.)

Do hereby AUTHORIZE (Sign Section D) REVOKE (*check only one*) the following DRP(s) (Sign Section H):

Name of Primary DRP	Fed Tax ID	Rule 24 ID
Email Address		Phone Number

(Complete the following table only if you are authorizing data to be released to a collaborating DRP)

Name of Secondary DRP	Fed Tax ID	Rule 24 ID
Email Address		Phone Number



CUSTOMER INFORMATION SERVICE REQUEST FOR DEMAND RESPONSE PROVIDERS (CISR-DRP)

Access to the following electric Service Account(s):

SERVICE ADDRESS	SERVICE CITY	SERVICE ACCOUNT NUMBER

(You can include additional Service Accounts by attaching a list to this form.)

TO AUTHORIZE DATA SHARING ONLY

A. TIMEFRAME OF AUTHORIZATION

(Check only one option below)

- Begin today and continue until _____ (mm/dd/yyyy) or until revoked by the Customer or DRP
 Begin today and continue indefinitely or until revoked by the Customer or DRP

B. SUMMARY OF INFORMATION AUTHORIZED TO BE RELEASED

I, (Customer), authorize SCE to disclose to the above DRP(s) for the Service Account(s) listed above or attached to this form: 1) customer personal energy-related information (e.g. name, service address, use schedule); 2) access up to 36 months historical as well as ongoing interval meter data and/or monthly usage data; 3) current SCE demand response programs or other non-demand response programs and plans in which you are known to participate with that may not allow dual participation with the program(s) offered by the above DRP(s); and 4) the information identified in Section D of Electric Rule 24.

C. CHANGES YOU AUTHORIZE THE DRP(S) TO MAKE ON YOUR BEHALF

I, (Customer), grant the above DRP(s) permission to request that SCE shorten the interval length of my electric meter(s), as authorized by SCE, for the Service Account(s) listed above or attached to this form, where DRP has successfully enrolled and registered my Service Account(s) in the California Independent System Operator's (CAISO) Relevant Systems, iSCE in the Meter Service Provider.

I, (Customer), grant the above DRP(s) permission to revoke this authorization on my behalf at any time and a revocation submitted by any one party shall revoke this Authorization for all of the other parties to this authorization.

D. CUSTOMER AGREEMENT

I, (Customer), authorize the actions and changes to be made by SCE as specified in this authorization. I further understand that the information that is transmitted to the above DRP(s) even after the authorization has expired, remains in compliance with the data for the time period during which the authorization was used. If at all events, the Authorization for a Service Account will be automatically revoked when the Service Account is closed.

I, (Customer), understand and agree that if I am on Critical Peak Pricing (CPP), then I will automatically be disconnected from CPP when my service account has been successfully registered by one of the above DRP(s) in the CAISO's Relevant Systems. I agree to bear any resulting financial consequences, including without limitation, loss of bill protection, loss of CPP incentives, and nonrenewals of incentives (and where applicable).



CUSTOMER INFORMATION SERVICE REQUEST FOR DEMAND RESPONSE PROVIDERS (CISR-DRP)

I, (if not Customer of Record), declare that I am authorized to execute this on behalf of the Customer of Record listed at the top of this form and that I have authority to financially bind the Customer of Record.

I, (Customer), understand SCE reserves the right to verify any authorization request submitted before releasing information or taking any action on my behalf.

I, (Customer), hereby release, hold harmless, and indemnify SCE from any liability, claims, demands, and causes of action, damages, or expenses resulting from: (1) any release of information to the DRP(s) pursuant to this Authorization; (2) the unauthorized use of the information by the DRP(s) or any other third-party; and (3) any actions taken by the DRP(s) pursuant to this Authorization. I understand that I may revoke this Authorization at any time by submitting a revocation request using the same form or approved electronic process accepted by SCE. I hereby indicate my consent to execute and submit this Authorization electronically or manually.

Authorized Signature of Customer or Agent _____ Date Signed (mm/dd/yyyy) _____

E. PRIMARY DRP'S AGREEMENT REGARDING CUSTOMER RELEASE OF AUTHORIZATION (To be completed by the Primary DRP only)

I, (Primary DRP), hereby agree to comply with this agreement, and to release, hold harmless, and indemnify SCE from any liability, claims, demand, causes of action, damages, or expenses resulting from the release or use of customer information obtained pursuant to the Authorization. I also hereby indicate my consent to execute and submit this document electronically.

Authorized Signature of Primary DRP _____ Date Signed (mm/dd/yyyy) _____

F. SECONDARY DRP'S AGREEMENT REGARDING CUSTOMER RELEASE OF AUTHORIZATION (To be completed by the Secondary DRP only)

I, (Secondary DRP), hereby agree to comply with this agreement, and to release, hold harmless, and indemnify SCE from any liability, claims, demand, causes of action, damages, or expenses resulting from the release or use of customer information obtained pursuant to the Authorization. I also hereby indicate my consent to execute and submit this document electronically.

Authorized Signature of Secondary DRP _____ Date Signed (mm/dd/yyyy) _____

G. JURISDICTION OF CPUC

This agreement at all times shall be subject to such changes, modifications and access to information as the California Public Utilities Commission may direct from time to time in the exercise of its jurisdiction, including without limitation, revisions to the types of customer information to be released under Rule 24.



CUSTOMER INFORMATION SERVICE REQUEST FOR DEMAND RESPONSE PROVIDERS (CISR-DRP)

FOR REVOCATION USE ONLY

H. CUSTOMER REVOCATION OF AUTHORIZATION

I, (Customer), declare that I am authorized to execute this Revocation manually or electronically on behalf of the Customer of Record listed at the top of this form and that I have authority to financially bind the Customer of Record. I hereby revoke the authorization to release information to the DRP(s) listed above. I hereby release, hold harmless, and indemnify SCE from any liability, claims, demands, causes of action, damages, or expenses resulting from: (1) any negligent conduct relating to this revocation; (2) any refusal to release information to the DRP(s) pursuant to this revocation; and (3) any conduct by the DRP(s) in connection with this revocation.

Authorized Signature of Customer or Agent _____ Date Signed (mm/dd/yyyy) _____

I. DRP REVOCATION OF AUTHORIZATION/DISCONTINUANCE FROM DRP DEMAND RESPONSE SERVICE

I, (DRP), hereby revoke the authorization to release the Customer's information to the above designated DRP(s). I hereby release, hold harmless, and indemnify SCE and its agents from any liability, claims, demands, causes of action, damages, or expenses resulting: (1) revocation of the authorization to release information to the above designated DRP(s); (2) from any refusal to release information to the DRP(s) pursuant to this revocation; (3) from any conduct by the DRP(s) in connection with this revocation; and (4) from my failure to timely notify SCE of the Customer's discontinuance from my Demand Response services. I also hereby indicate my consent to execute and submit this Authorization electronically.

Authorized Signature of DRP Requesting Revocation _____ Date Signed (mm/dd/yyyy) _____
 (Please indicate Primary or Secondary DRP)


Theodore Roosevelt

Authentication and authorization

- Authentication establishes identity (“who you are”)
 - Must be consistent with utility’s online and telephone verification – i.e. “no more onerous principle”
- Authorization grants rights
 - Must include “scope” (description of data, term, purpose specification)
 - Authorization screens/process should be Commission-approved







Authentication: Best practices




Verification Required

In order to continue, we need to verify your identity. Please select from the options below.

-  I know my account number
-  Find my account using my phone number
-  Find my account using my email
-  Find my account using my address

[Decline this authorization](#)

[Terms](#) | [Privacy](#) | [Help](#) | Powered by [UtilityAPI](#)



Verification Code Entry

We sent you a one-time passcode via text message. Please check your phone text messages for the code and enter it below.

[Didn't receive a code?](#)

[Back](#)

[Terms](#) | [Privacy](#) | [Help](#) | Powered by [UtilityAPI](#)



Authorization: Best practices

**SILICON VALLEY
CLEAN ENERGY**

Acme Energy Consulting is requesting authorization to:

- Access your account details, bills, and intervals.**
This includes your account number, service address, rate plan, utility bills, and smart meter intervals. [Read more](#)
- Both historical and ongoing data**
Share historical bills and intervals going back 2 years, and continue to share bills and intervals [Read more](#)
- For all of your meters**
Share above data for all of your services (e.g. meters).
 - 123456789-0 (333 W EL CAMINO REAL #600) *electric*
 - 234567890-1 (333 W EL CAMINO REAL #600) *gas*

How your data will be used:
Written by Acme Energy Consulting: We will use your data to calculate your energy efficiency audit for you. [Link](#)

Authorize Acme Energy Consulting **Decline**

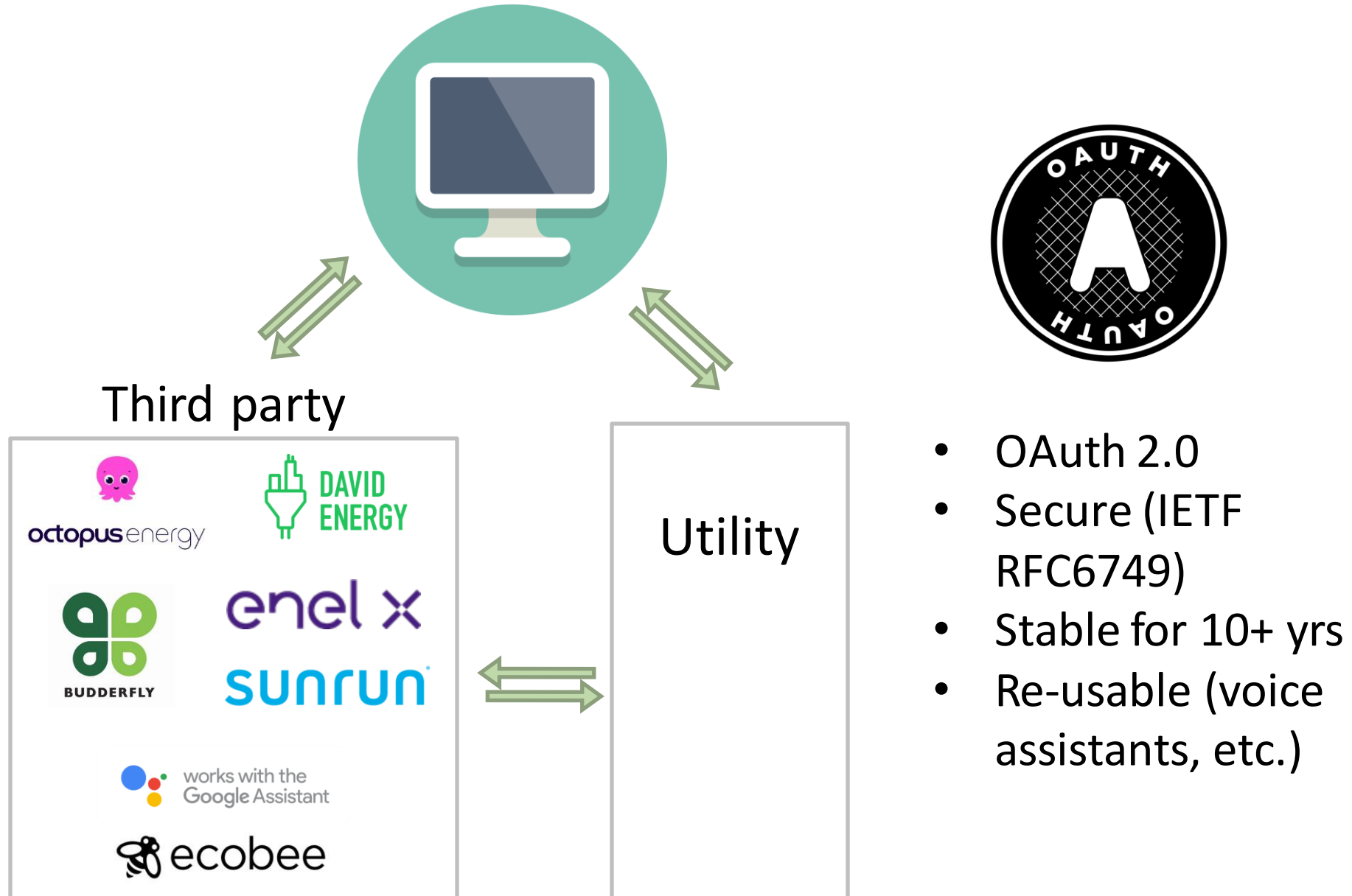
You can revoke your authorization at any time. We will email you a receipt.

[Terms](#) | [Privacy](#) | [Help](#) | Powered by UtilityAPI

- One screen
- No scrolling
- Mobile-friendly
- No zooming

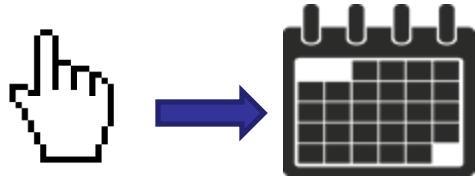


Architecture: Use Tried and True Standards

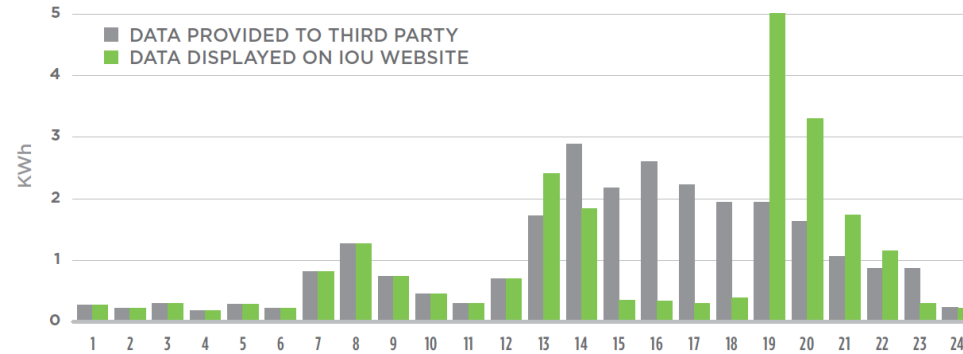


Glitches: A taxonomy

#1 Data Delays



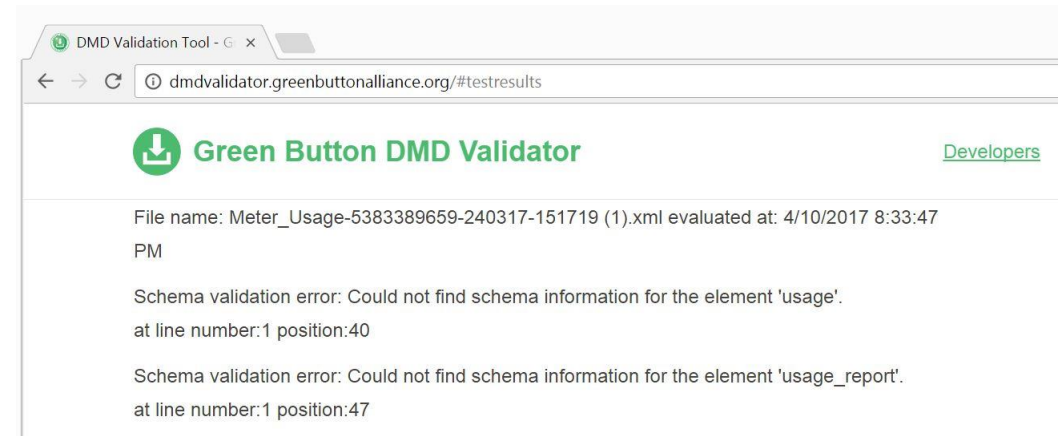
#2 Incorrect Data



#3 Unplanned outages



#4 Poor conformance



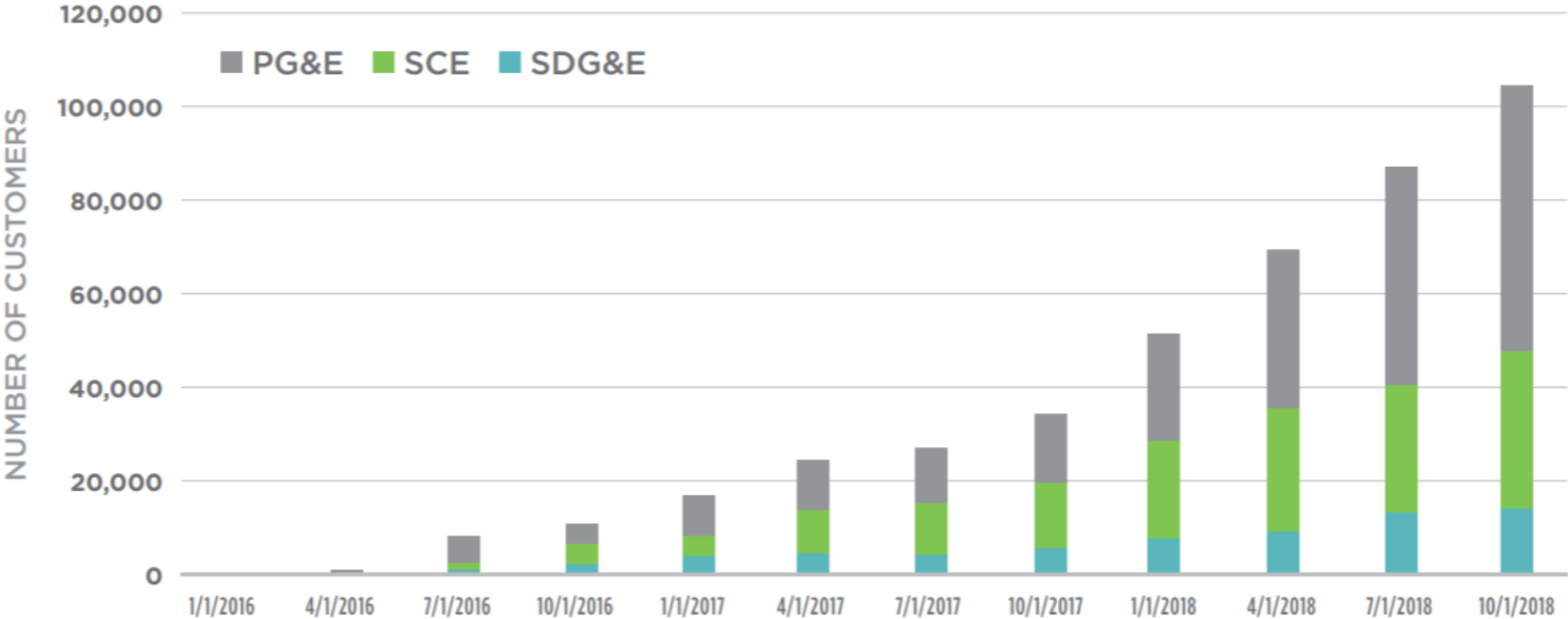
Service

Level

Agreement

- 99.5%+ uptime
- Defined scheduled maintenance windows
- Response times, resolution times
- Public website showing performance

What success looks like



Number of California customers using Green Button Connect to share data with demand response providers, by electric utility and by quarter, 2016-2018. Source: Quarterly compliance filings, CPUC A.14-06-001 et al.

2. History: Fair Information Practice Principles



privacy



access

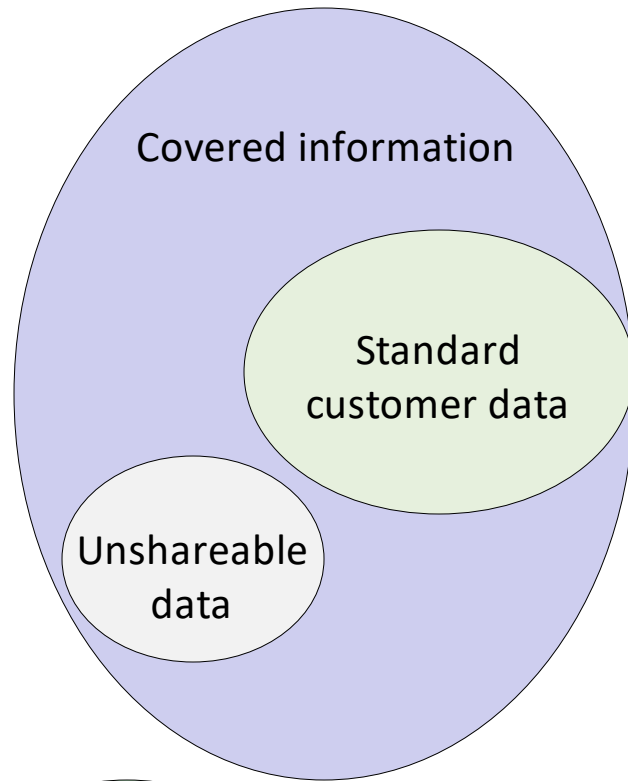


2. History: Fair Information Practice Principles

- Developed 1973 – 1998 by U.S. government, including the Federal Trade Commission
- Informed privacy law around the world, including GDPR and California's 2011 privacy rule
- Components:
 - Notice/Awareness
 - Choice/Consent
 - Access/Participation
 - Integrity/Security
 - Enforcement/Redress



NC draft rule: what data is covered



- Standard customer data is shareable (usage, billing info, account info)
- “Unshareable data” = DOB, SSN, banking and credit card info, etc.

Aggregated data (PUBLIC)



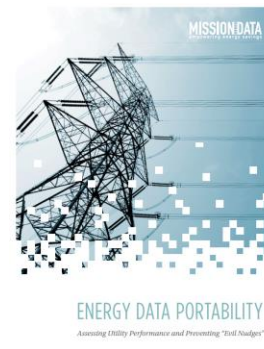
NC draft rule: enforcement against “bad actors”

- Eligibility criteria of third parties:
 - Provide contact info + tax ID to utility
 - Demonstrate interoperability
 - Acknowledge receipt and review of the rules
 - Not be “banned”
 - Adopt & comply with DataGuard
- Utilities report reasonable suspicion of a third party’s violation to the PSC
- PSC investigates and can ban a third party
- State AG and FTC can levy fines/penalties for misrepresentation & deceptive business practices, in addition to private tort claims



Thank You!

Michael Murray, President
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www.missiondata.io/reports





Making the Most of Michigan's Energy Future

Customer Education and Participation

Session 2: Data Privacy, Sharing, and Customer Consent

Break: 2:20pm-2:25pm

June 22, 2021

1:00PM – 3:30 PM (Eastern)



MPSC

Michigan Public Service Commission

June 22, 2021

Virtual Panel

Aggregated and Anonymized Data: Similarities & Differences Opportunities & Barriers

Michigan Public Service Commission
Smart Grid Section
Energy Resources Division

Customer Education and Participation Meeting

David Littell, Senior Advisor

U.S. Program

The Regulatory Assistance Project (RAP)[®]

Bernstein Shur

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Portland, Maine 04101

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dlittell@raponline.org

Twitter: @DavidPLittell

Presentation Agenda

- Overview of Anonymized and Aggregated Data
- State Examples of Utility & Energy Data Sharing Initiatives
- Issue by Issue Summary on Similarities and Differences
- Drivers for Data Access & Barriers

1

Overview of Aggregated and Anonymized Data



This is a Subset of Utility and Energy Data:

Focus here on policies and practices governing the provision of **aggregated** or **anonymized** customer energy utility data **without customer consent**

- Commission orders
- Administrative rules
- Utility implementation (websites, forms, etc.)
- Reports completed for Commissions or other agencies

Anonymized Data vs. Aggregated Data

Customer	Address	January 2021
Allen	10 Main St	1,388 kWh
Brown	555 Elm St	790 kWh
Cabrera	21 Park Ave	533 kWh
Davis	49 City Dr, Apt 1	475 kWh
Edwards	49 City Dr, Apt 2	404 kWh

Anonymized

Customer	January 2021
1	1,388 kWh
2	790 kWh
3	533 kWh
4	475 kWh
5	404 kWh

Aggregated

# Customers	January 2021
5	3,590 kWh

Protecting Privacy: Screening Thresholds

- “Screens” are used to prevent the release of aggregated or anonymized data sets that would put privacy at risk:
 - Minimum number of customers in the data set (e.g., 15)
 - Limit on the percentage contribution of any one customer to the total energy use in the data set (e.g., 15%)
 - “15/15” screen: at least 15 customers in the data set and no customer can represent more than 15% of total energy use in the data set
 - “4/*” screen: at least 4 customers, no limit on percentage of total energy use
- Data requests that don’t pass the screen require customer consent

Access with Customer Consent vs. Use of Aggregation Threshold

Traditional Approach



All tenants complete printed or electronic form

Best Practice Approach — Minimum Aggregation Threshold

If $\geq x^*$ tenants



Individual consent not needed; threshold usually $x=2$ to 5 tenants*

or if $< x^*$ tenants



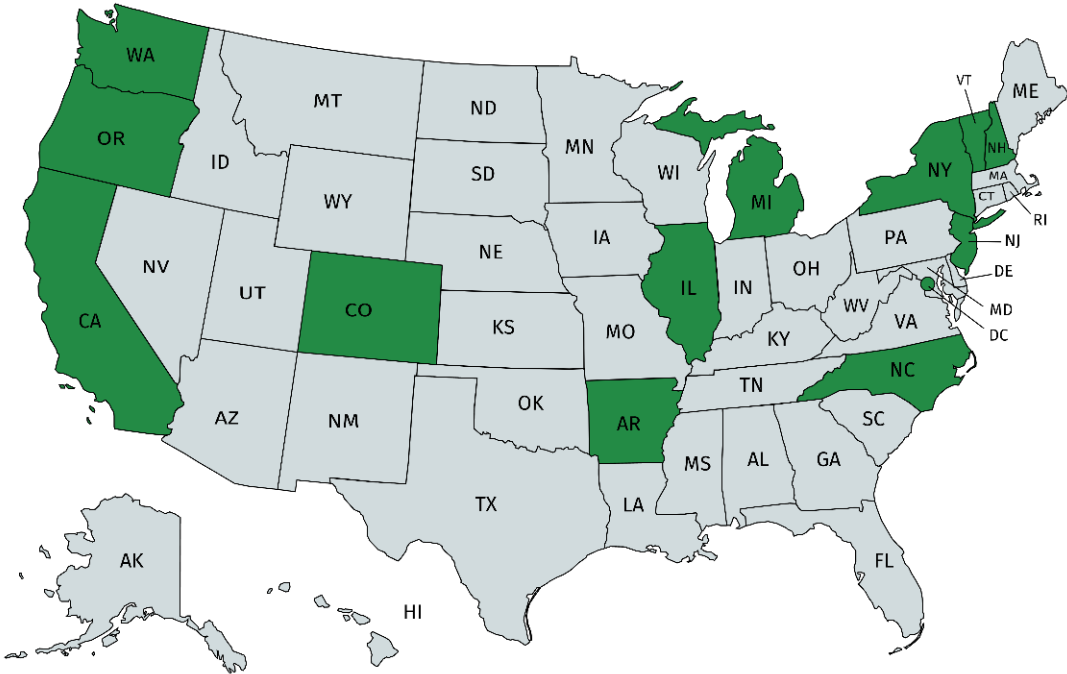
All tenants complete printed or electronic form

Source: US DOE (2016) *Best Practices for Providing Whole-Building Energy Data: A Guide for Utilities*

2 Leading State Examples



Jurisdictions Leading in Energy Data Access Initiatives



Colorado

- PUC Docket 14R-0394EG ([July 2015 Decision](#))
- Electricity and gas data
- Segmented screens (aggregation thresholds)
 - For whole building benchmarking – 4/50
 - For all other aggregations – 15/15
- *Community Energy Reports* for larger communities (no data request necessary)
 - Municipalities with >50,000 residents, counties >100,000 residents
 - Annual usage by customer class
 - 15/15 screen applies to each customer class



CO Community Energy Report Example

ANNUAL COMMUNITY ENERGY REPORT BY XCEL ENERGY					
Community:	City of Denver				
Year of Data:	2019				
Energy Consumption Data [4]					
Electricity	Number of Customers [5]	Energy Consumption (kWh)	Carbon Emissions (metric tons CO2) [6]	Revenues Billed [7]	Customers Removed from Dataset [8]
Commercial	29,773	4,078,029,466	2,096,107	\$357,668,290	0
Industrial	2,711	727,290,856	373,827	\$59,881,995	0
Residential	307,775	1,818,409,808	934,663	\$204,905,197	0
Street Lighting - Metered	n/a	892,141	459	\$79,399	-
Street Lighting - Non-Metered/Customer Own	n/a	268,952	138	\$23,772	-
Street Lighting - Non-Metered/Xcel-Owned	n/a	51,647,554	26,547	\$10,866,910	-
Total:	340,259	6,676,538,778	3,431,741	\$633,425,562	
Natural Gas	Number of Customers [5]	Energy Consumption (therms)	Carbon Emissions (metric tons CO2) [9]	Revenues Billed [7]	Customers Removed from Dataset [8]
Commercial	18,326	137,027,963	726,248	\$63,923,703	0
Industrial	2,697	64,027,120	339,344	\$16,214,134	0
Residential	200,079	158,372,892	839,376	\$111,500,865	0
Total:	221,102	359,427,975	1,904,968	\$191,638,701	

Illinois

- ICC Docket 13-0506 ([January 2014 Order](#))
- Electricity data only, but more than in other states
- **Anonymized** customer data, not just aggregations
 - Grouped at ZIP+4 level for each customer class
 - 15/15 screen applied to each customer class
 - If ZIP+4 can't pass screen, grouped at ZIP level
- **AMI interval data** where AMI is deployed
 - Interval lengths vary by utility and customer class



California Public Utilities Commission

- PUC Docket R.08-12-009 ([May 2014 Order](#))
- Electricity and gas data
- Segmented screens (*aggregation* thresholds)
 1. Monthly sum and average customer usage aggregated by zip code:
 - Residential – 100/*
 - Commercial or Agricultural – 15/15
 - Industrial – 15/15
 2. *Anonymized* monthly data by census block for local, state, or federal government agencies and academic researchers:
 - Residential, Commercial, or Agricultural – 15/20
 - Industrial – 5/25
- Zip code level data posted on utility websites (no data request needed)
- Standard NDA and consistent form for anonymized data requests



California Energy Commission

- CEC Docket 15-OIR-05 (March 2018 regulations)
- Rulemaking to implement statewide whole building benchmarking law
- Electricity and gas data
- Segmented screens (aggregation thresholds)
 - Buildings with no residential accounts: 3/*
 - Buildings with ≥ 1 residential account: 5/*



Michigan

- Order #[18-845](#) July 2020, Administrative Rules R-460-153, and [Governing statute](#)
- 2 utilities reviewed – DTE, Consumers Energy
- Data Privacy tariffs required – no consent needed for aggregated data – gas and electric covered
- Focus on Value-Added Programs (VAPS)
- April 2019 [staff report](#) to Commission; Next steps on data in progress



New Hampshire

- Docket DE 19– 197 – settlement filed April 28, 2021 (hearing May 24) on a Statewide Multi-use Online Energy Data Platform
- State legislation and PUC rules 363:37-38
- NH Utilities to develop a unified internet-hosted web portal and API for customers and 3rd Party access a “Platform Hub”
- Aggregation granularity at town, State, customer or rate class levels
- Platform to support aggregation at:
 - 100 or more customers
 - 4/50 rule



New York

- Case 20-M-0082 – Feb 11, 2021 and April 15, 2021 Orders
- Utility Energy Registry (UER) – utility requirement to upload monthly data semi-annually, gas and electric
 - Screens – 15/15 residential; 6/40 – all other
 - UER - designed to streamline community access to aggregated data; includes commercial and industrial data
- Integrated Energy Data Resource (IEDR) - customer and utility data access centralized, including hosting capacity maps



NY Utility Energy Registry



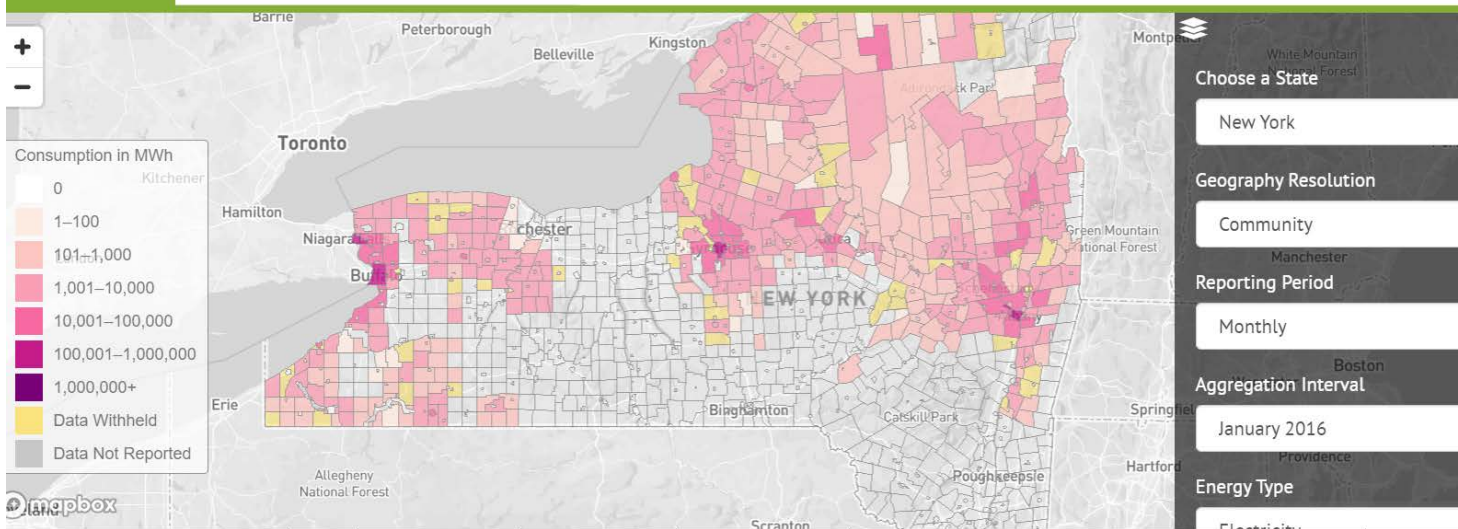
NYSDERDA

EXPLORE DATA

GET DATA

ABOUT

FEEDBACK



<https://utilityregistry.org/app/#/>

3 Examples by Issue



MN November 2020 Commission Order

“In order to further develop the record on how best to refine the Standards, the Commission will request comment on the following topics:

- Whether the aggregation screens should be segmented into two (or more) distinct aggregation screens, with different threshold levels and requirements, ranging from building-level to community level, including consideration of multi-unit single owner rental properties and of the unique roles of building owners/managers and of local governments;
- Refinement of specific provisions of the contract requirements for anonymized data access;
- Establishment of uniform customer access forms;
- Identification of opportunities to appropriately streamline the data access process to reduce the total cost of aggregating and releasing data;
- Ascertaining the appropriate threshold for limiting application of the Standards to commercial/industrial natural gas and electric customers; and
- Aggregated CEUD for communities and other local units of government.”

Segmented Aggregation Screens

- Most states apply a single screen universally
- Exceptions
 - Previously noted: CO, CA, NY, NH
 - AR (*proposal; no adopted policy to date*) – working group members discussed a 4/80 screen for whole building benchmarking and 15/15 for all other data requests
- Segmentation examples based on customer class and based on anonymized vs. aggregated vs. whole building “use cases”

Contract Requirements for Anonymized Data Access - Illinois

- Utilities require data requesters to sign an NDA
- Terms are unique to each utility
- ComEd NDA requires the data requester to agree to:
 - Delete any customer identifying information that they discover and notify ComEd
 - Not share the data publicly or with any other party
 - Not attempt to re-identify the anonymous customer account holders
- Ameren NDA is more focused on protecting the utility from lawsuits

Contract Requirements for Anonymized Data Access - California

- Researchers must sign an NDA with the utility
 - Utility can require pre-disclosure review of researcher's information security & privacy controls/protections
- Local governments don't sign an NDA but accept terms of service:
 - They will use the data for the purposes stated in the request
 - They will not release the data to another third party or publicly disclose the data
- Utilities notify PUC prior to release of anonymized data and maintain a log of all data requests

Uniform Data Access Forms

- Single statewide data request form:
 - NJ – for whole building benchmarking data; data requests processed by Board of Public Utilities in cooperation with utilities
- Utilities ordered to develop uniform data request forms:
 - CA – for anonymized census block data

Opportunities to Streamline the Data Access Process

- Automatically post aggregated data to utility website (no data request necessary):
 - CO – community level
 - NY – community level
 - CA – zip code level
- NY inviting other jurisdictions to participate in a *national* Utility Energy Registry
 - MN engaged through [Great Plains Institute](#) and the Department; privacy issues deferred to Commission

Threshold for Limiting Application of the Standard to C&I Customers

- No examples from other states of limits similar to MN
- NYSERDA Utility Energy Registry report:
 - Notes that largest energy consumers (e.g., paper mills, cement plants) routinely report fuel usage to EPA for emissions inventories and permitting
 - This is almost always public information
 - Screening out these industrial customers won't protect confidential information, only makes public information harder to get
 - Conclusion: avoid “needless privacy failures”

Aggregated Data for Communities and Local Governments

Some states have focused on meeting the specific data needs of local governments:

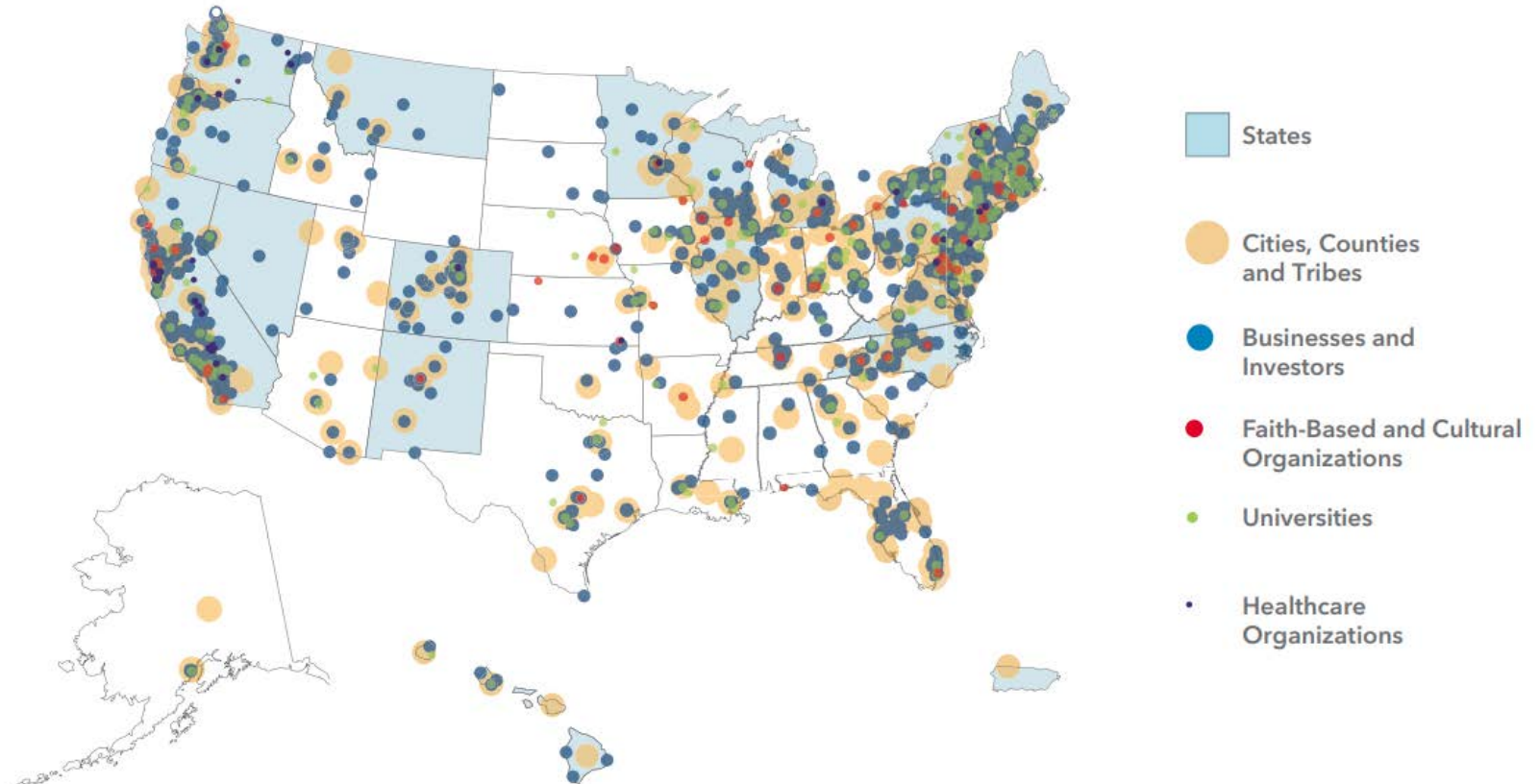
- CO – Community Energy Reports
- NY – Utility Energy Registry
- CA – anonymized monthly usage data by census block available to local governments
- NH – settlement pending in statewide web-based Platform Hub

4 Other Drivers for Data Access



City Climate Commitments

Exhibit 2 **U.S. Coalition of Climate Actors***



*Map represents climate actors as of 2019 documented in *Accelerating America's Pledge*.

Source: [America's Pledge/We Are Still In](#)

Community Choice Aggregation

Authorized in 9 States:

- California
- Illinois
- Massachusetts
- New Hampshire*
- New Jersey
- New York
- Ohio
- Rhode Island
- Virginia*

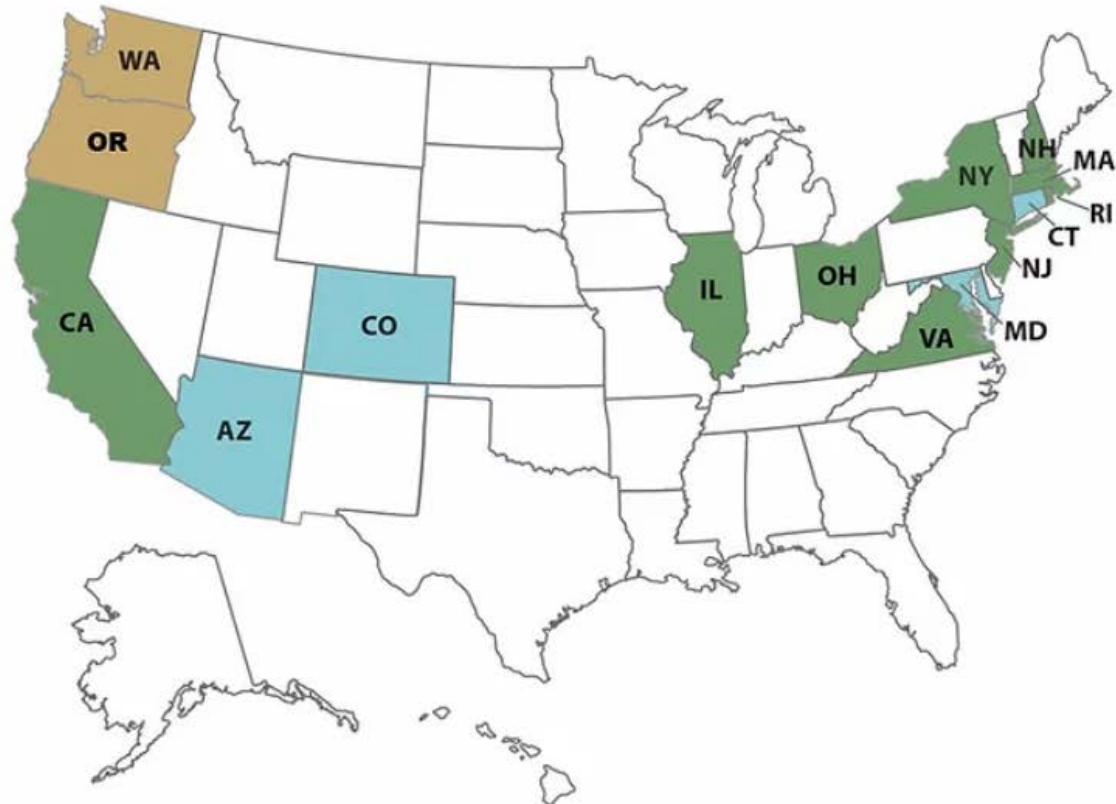
Actively Investigating:

- Arizona
- Colorado
- Connecticut
- Maryland

Watch List/Potential:

- Oregon
- Washington

* Not yet implemented

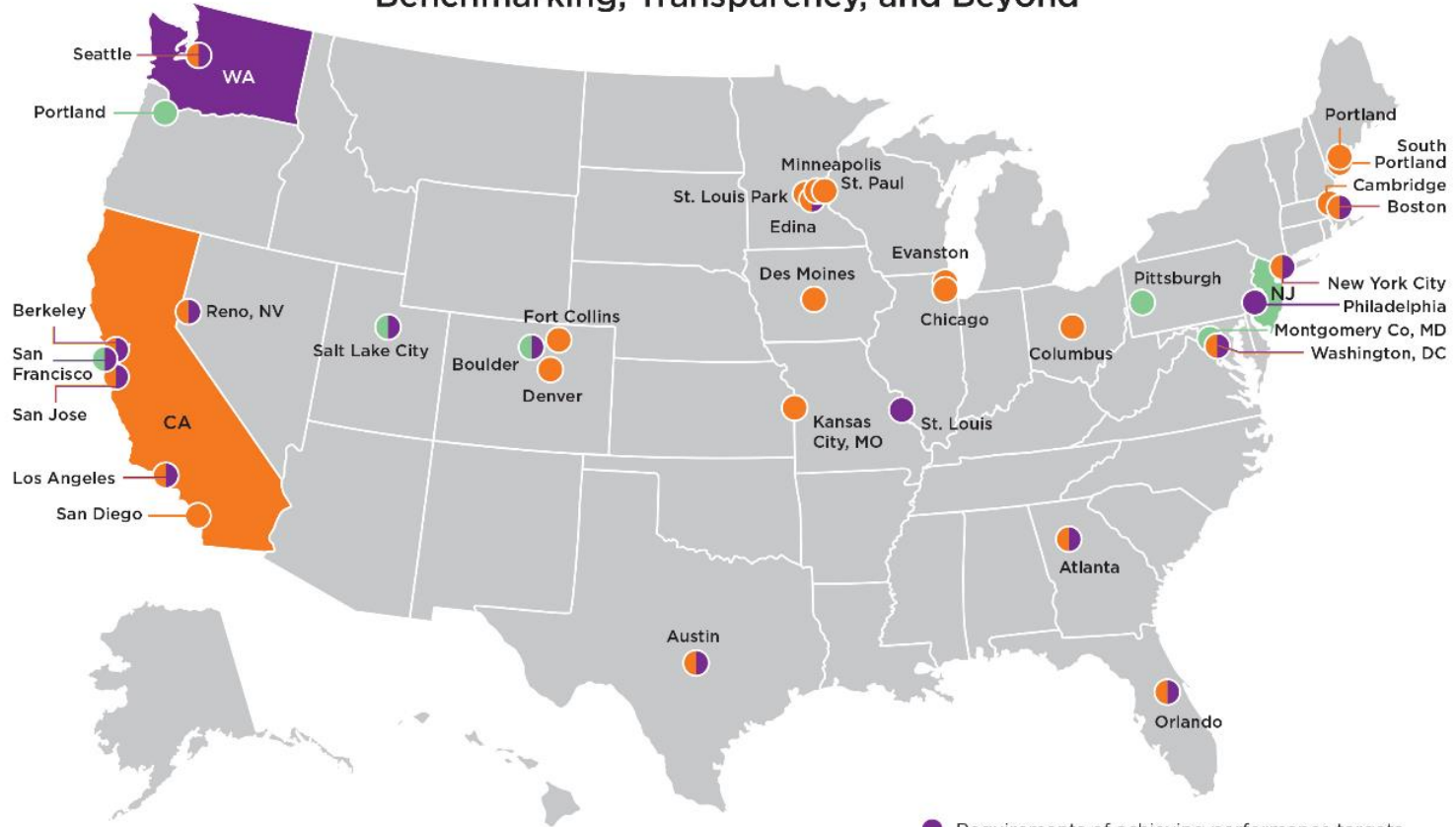


Source: <https://www.leanenergyus.org/cca-by-state>

Building Benchmarking

- Case studies mentioned earlier
- DC example – annual benchmarking required since 2013
 - Public building – 10,000 sq ft or greater
 - Private buildings – 50,000 sq ft or greater (25,000 sq ft beginning in 2021, 10,000 in 2025)
- VT building benchmarking – [Act 62 of 2019](#) – sought recommendations to Commission on building benchmarking – residential and commercial
- Many use EPA Energy Star Portfolio Manager

U.S. City, County, and State Policies for Existing Buildings: Benchmarking, Transparency, and Beyond



- Requirements of achieving performance targets or completing additional actions
- Benchmarking policy for public, commercial, and multifamily buildings adopted
- Benchmarking policy for public and commercial buildings adopted



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Data to measure safe, affordable, reliable and equitable service?

- Granular reliability information
 - SAIDI/SAIFI by feeder or circuit
 - SAIDI/SAIFI by zip code
- Demand/load (KW) by feeder or circuit,
 - Hourly or sub hourly demand/load (KW) by feeder or circuit
- Granular wire down response time
- Pole failures/equipment failures
 - Equipment failures categorized by age of equipment in 5-year increments
- Aggregate regional arrearages by zip code (+four digits)

Other Resources

- [RAP: Driving Building Efficiency with Aggregated Customer Data: A Brief Review of Selected State Practices in the U.S. \(2013\)](#)
- [Institute for Market Transformation: BuildingRating website for municipal and state building benchmarking policies \(2021\)](#)
- [US DOE: Energy Data Access: Blueprint for Action Toolkit website \(2021\)](#)
- [NY Data Access Framework Order \(April 2021\)](#)
- [NH Data Access Settlement \(filed April 2021\)](#)

About RAP

The Regulatory Assistance Project (RAP)® is an independent, non-partisan, non-governmental organization dedicated to accelerating the transition to a clean, reliable, and efficient energy future.

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Data Aggregation and Anonymization Methodologies and Best Practices



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Making the Most of Michigan's Energy Future

Customer Education and Participation Closing Comments

Danielle Rogers

Smart Grid

Michigan Public Service Commission

June 22, 2021



MPSC

Michigan Public Service Commission

Thank You and Please Stay Engaged!

- Thank you for your participation.
- Please stay engaged.
 - Sign up for the listserv if you have not already
 - Go to MI Power Grid [Customer Education and Participation workgroup](#) page
 - Scroll to bottom to add email
 - Attend future meetings
 - Next Meeting on Tuesday, July 20, 2021 1:00pm-4:00pm (EST)
 - Topic: Customer Engagement in Commission-related Activities: Opportunities and Barriers
 - Questions/Concerns
 - Email: Kayla Gibbs (gibbsk2@michigan.gov) and/or Danielle Rogers (rogersd8@michigan.gov)

Thank you!