



NARUC

National Association of
Regulatory Utility Commissioners

Customer Energy Data Access "101"

July 8, 2025

DATA ACCESS WEBINAR SERIES

Open to any state agency staff!

All webinars are held from 2:00 to 3:30 p.m. ET

Tuesday, July 8: Energy Consumption Data: What is it and why do we care?

Explore the importance of utility customer energy consumption data through state-specific examples of utility data collection, data management, and the evolution of data standards followed by a live Q&A session offering expert guidance for state PUCs on data issues.

Tuesday, August 12: Consent-Based Data-Sharing

Discuss the process and components of consent-based data-sharing and hear expert guidance on evaluating data-sharing proposals and utility investment requests including questions to assess the success of particular approaches.

Tuesday, September 15: Data Access Policy Tools

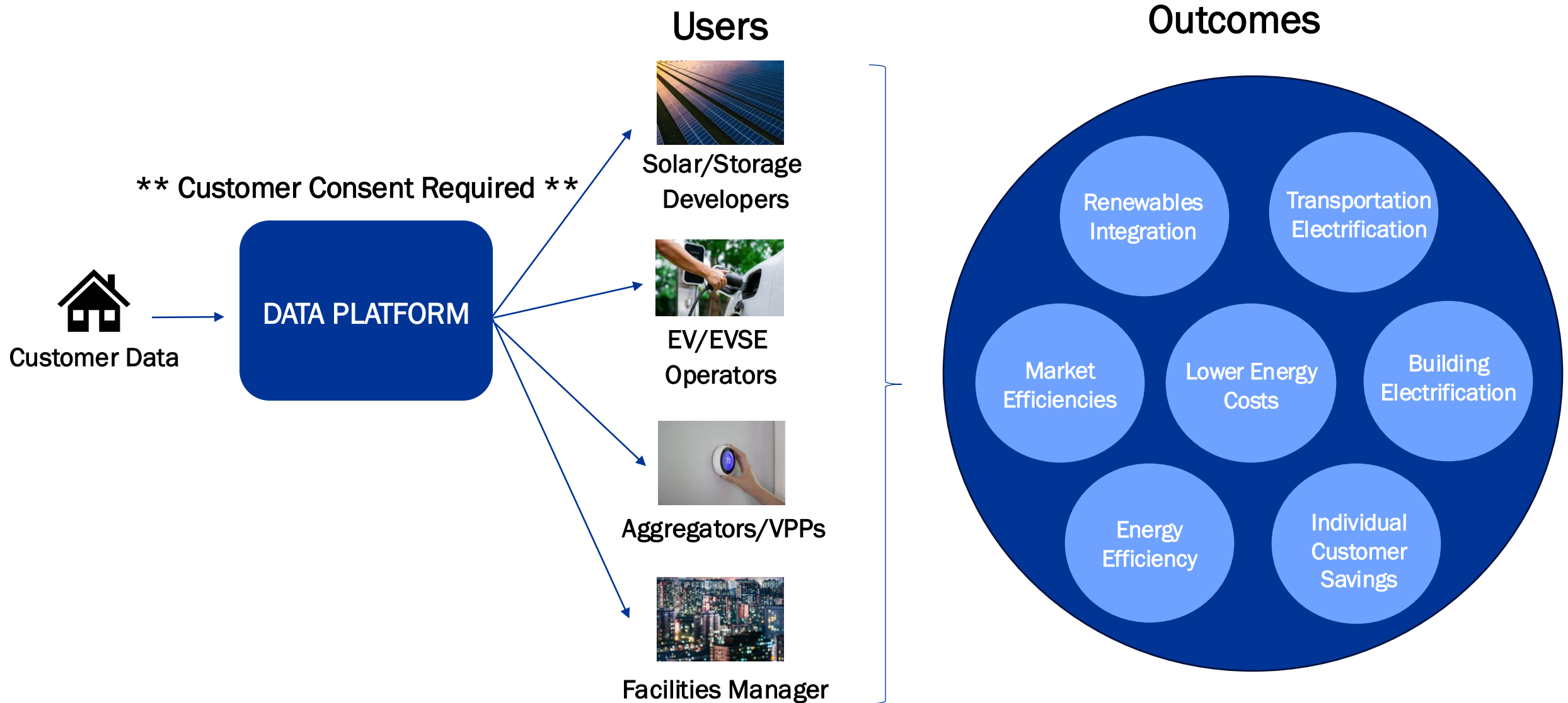
Examine the tools that regulators, policymakers, and utilities are using to develop robust policies around data access, discuss the pros and cons of certain regulatory and performance requirements, and identify valuable skills for tackling data access questions.

Agenda



- Overview of Webinar Series and Technical Assistance Session
 - *Jeff Loiter, NARUC, Technical Director*
- Moderator's Opening Remarks
 - *Commissioner Paradis, Illinois Commerce Commission*
- Expert Presentation
 - *Nikhil Balakumar, Eclipse, Founder and CEO*
 - *Colleen Morris, Calico Energy, CEO*
 - *Kelly Crandall, UtilityAPI, Vice President of Regulatory and Policy*
- Technical Assistance Sessions
 - *Nikhil Balakumar, Colleen Morris, Kelly Crandall*
- Wrap-up

Why We Care About Data: Users and Outcomes





Common Categories of Energy Data

DATA		HIGH LEVEL REQUIREMENT
Type	Description	
Raw meter usage data	Customer interval usage data that has <u>not</u> yet gone through the VEE (validation, editing, estimation) process	<ul style="list-style-type: none"> • Data is provided in 30-minute intervals • Data is provided for net usage, consumption (Ch-1), and generation (Ch-2) where possible • Data is accessible via a dashboard view, file download, and API • Data is updated (refreshed) daily • Data contains 24 months of historical data • Data adheres to the latest Green Button Alliance data standards
Billing quality usage data	Customer interval usage data that has gone through the VEE (validation, editing, estimation) process	<ul style="list-style-type: none"> • Data is provided in 30-minute intervals • Data is provided for net usage, consumption (Ch-1), and generation (Ch-2) where possible • Data is accessible via a dashboard view, file download, and API • Data is updated every 10 days • Data contains 24 months of historical information • Data adheres to the latest Green Button Alliance data standards
Billing data	Monthly customer billing data, including summary usage information and billing charges	<ul style="list-style-type: none"> • Data is accessible via a dashboard view, file download, and API • Data is updated with a latency of 1 month • Data contains 24 months of historical information
Customer & account info	Information on customers and corresponding account details	<ul style="list-style-type: none"> • Data is accessible via a dashboard view, file download, and API • Data is provided for the current customer / account

*ComEd Data Platform Requirements – Customer Data

<https://www.icc.illinois.gov/docket/P2022-0486/documents/359481/files/629728.pdf>

The Realities of Metering and Buildings

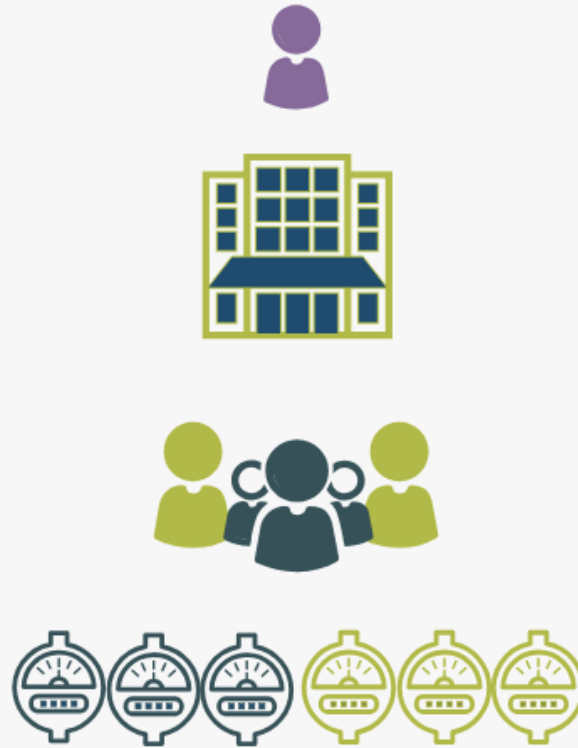
Single Family Residential



Multifamily Residential



Mixed Use Commercial and Residential



Multitenant Commercial



Owner-Occupied Commercial



■ residential
 ■ commercial
 ■ Building owner / manager

Additional Definitions



Aggregated Data



A property owner or manager needs data for an entire building, e.g.

- Data from multiple customers added together
- No customer PII without consent
- Clear industry precedent for these scenarios
- Consent not required if final data is comprised of data that meets certain requirements (i.e. aggregation thresholds)

Anonymized Data



A city planner needs data for all meters in a neighborhood or zip code, e.g.

- Data from multiple meters
- Does not contain customer PII
- Clear industry precedent for these scenarios
- Consent not required

Use Case #1: Size Residential DER System

- Example Users

- Residential solar + storage company



- Example Goals

- Appropriately size solar + storage system with consideration of peak rate periods

- Data Needs

- Billing-quality usage data in a standard format
- Billing data including customer rate/tariff information
- Customer and account info

Use Case #2: Enroll in DER Program

- Example Users
 - V2G program implementer
- Example Goals
 - Assess whether customers would benefit from time-of-use EV charging program and enroll them
 - Understand whether customer is enrolled in or eligible for other programs
- Data Needs
 - Billing-quality usage data in a standard format
 - Billing data including customer rate/tariff information
 - Customer and account info



Use Case #3: DER Aggregation

- Example Users
 - Virtual power plant program manager
- Example Goals
 - Seamlessly enroll multiple residential and/or commercial customers into virtual power plants
 - Data sufficient to show compensable load flexibility
- Data Needs
 - "Raw" and/or billing-quality usage data in a standard format
 - Billing data including customer rate/tariff information
 - Customer and account info



Use Case #4: Commercial Facilities Management

- Example Users

- Retail big box store with premises across the country
- County government with hundreds of facilities
- Hyperscaler data center company with 24/7 carbon-free electricity goal



- Goals

- Consolidate bills from multiple utilities/premises into single tool
- Understand impacts of rate changes on utility bills
- Identify and prioritize buildings for energy management

- Data Needs

- Billing quality interval data in a standard format, regardless of utility
- Electronic transfer of data from multiple premises in flatfile (.CSV)
- Rate/tariff information

The Realities of Metering and Buildings

Single Family Residential



Multifamily Residential



Mixed Use Commercial and Residential



Multitenant Commercial



Owner-Occupied Commercial



■ residential ■ commercial ■ Building owner / manager

Use Case #5: Multifamily Building

- Example Users

- Multifamily portfolio owners
- Mom and pop property owners
- HUD, affordable housing



- Goals

- Baseline and benchmark – comply, access funds, participate in programs
- Efficiency or other upgrades

- Data Needs

- Historic and ongoing monthly usage data

Use Case #6: Mixed-Use Commercial Buildings

- Example Users

- Small and large asset portfolio owners and managers
- Service providers / vendors for the same



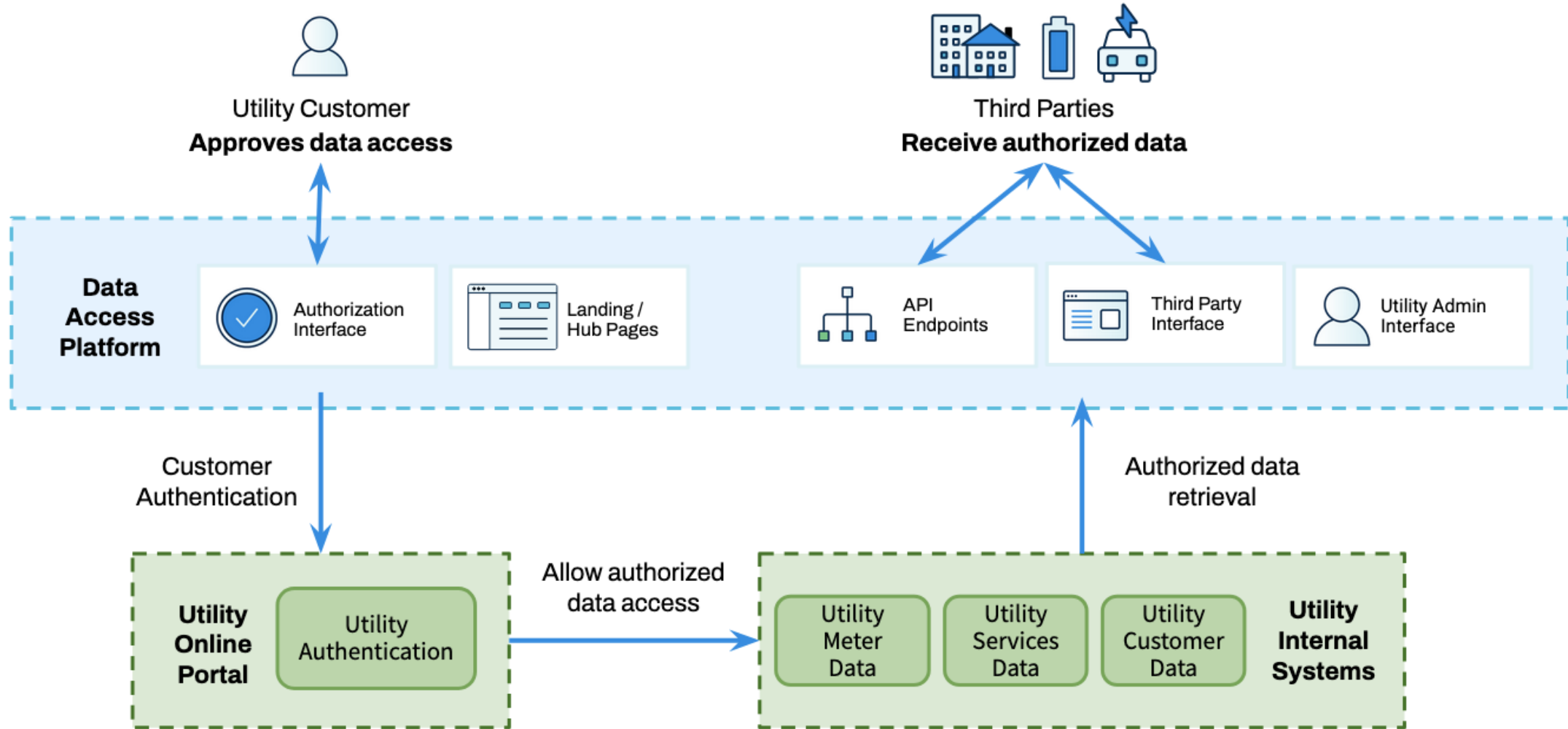
- Goals

- Baseline and benchmark – comply (BPS), access funds, participate in programs
- Manage net operating income (NOI)
- Efficiency or other upgrades

- Data Needs

- Historic and ongoing monthly usage data
- Higher resolution the better – building level load information highly desired

Visualizing the Technical Side





Foundational Actions for Realizing Use Cases

Actions that make these use cases more likely to be used and to create value for customers and third parties:

- Standard data formats
 - Electronic Data Interchange
 - Green Button Connect
- Easy, prompt customer authorization
- Straightforward account provisioning for third parties
- Application Programming Interfaces (APIs)



Foreshadowing: Emerging Opportunities

- Multi-utility data-sharing platforms (state, regional)
 - Broad coverage is critical for third parties
 - Fairly standardizes requirements for customers, third parties
 - Unifies electric/gas data across utilities for electrification opportunities
 - Examples: TX, NY, CA, NH, MA, IL etc.
- Data access legislation
 - Customer bills of rights enshrine customers' right to own, correct, delete data
 - Similar to online banking policies around simplicity, security, standardization
 - Can address one or more use cases
- Evolving cost recovery practices
 - Conditional cost recovery (ex: demonstrate AMI benefits)
 - Hybrid revenue-sharing
 - Market transformation models



QUESTIONS?

Please use the Q&A feature in your Zoom Toolbar





Next Webinar in the Data Access Series

Consent-Based Data-Sharing

August 12, 2025 | 2:00 ET | Open to state agency staff | Register now!

Consent-based data-sharing is a foundational service that utilities can provide customers and their third parties (e.g., retail suppliers, solar developers) to enable sharing of their interval energy data. This webinar will break down the process of consent-based data-sharing and systematically address the components of effective data-sharing, including the use of national data standards that embed privacy and security, and the plain-language enrollment requirements and easy customer interfaces utilities and regulators can implement. Experts on user experience, cybersecurity, and policy will address key features for regulators to look for in data-sharing proposals or utility requests for investment in billing and metering infrastructure or IT resources. Participants will also learn about questions they can ask to determine whether a data-sharing implementation is likely to succeed for particular use cases.



Technical Assistance Sessions



Expert Take-Aways



NARUC
National Association of
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Thank You

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<https://www.naruc.org/>