

BREAKFAST: THE EVOLUTION OF TRACKING SYSTEMS IN A CHANGING ENERGY LANDSCAPE

Thursday, Sep 4 8:00-8:45 AM



**Renewable Energy
Markets™ 2025**

CLEAN ENERGY TRACKING COLLABORATIVE

A photograph of a wind farm at sunset or sunrise. Several white wind turbines with three blades each are silhouetted against a bright sky. The turbines are arranged in a line, with one prominent one in the foreground and others receding into the distance. In the background, there are rolling hills and mountains under a clear blue sky.

CETC

CLEAN ENERGY
TRACKING
COLLABORATIVE

 **CRS**

Agenda

- Anti-Trust Statement
- CETC Overview and Introduction
- CETC Structure
- Future Topics
- Round Table Discussions

Anti-Trust Statement

It is the policy of Center for Resource Solutions to comply in all respects with federal and state antitrust and competition laws. CRS events and programs are intended to foster the exchange of information in the renewable energy industry. While engaging in these activities, discussion of any matters relating to competition among participants or relating to practices that may restrain trade with third parties is not permitted. These prohibited subjects include prices, allocating territories, boycotts, or any other statements that may be construed as anti-competitive. CRS does not condone and disclaims any such topics. Any questions about the propriety of a discussion should be raised immediately.

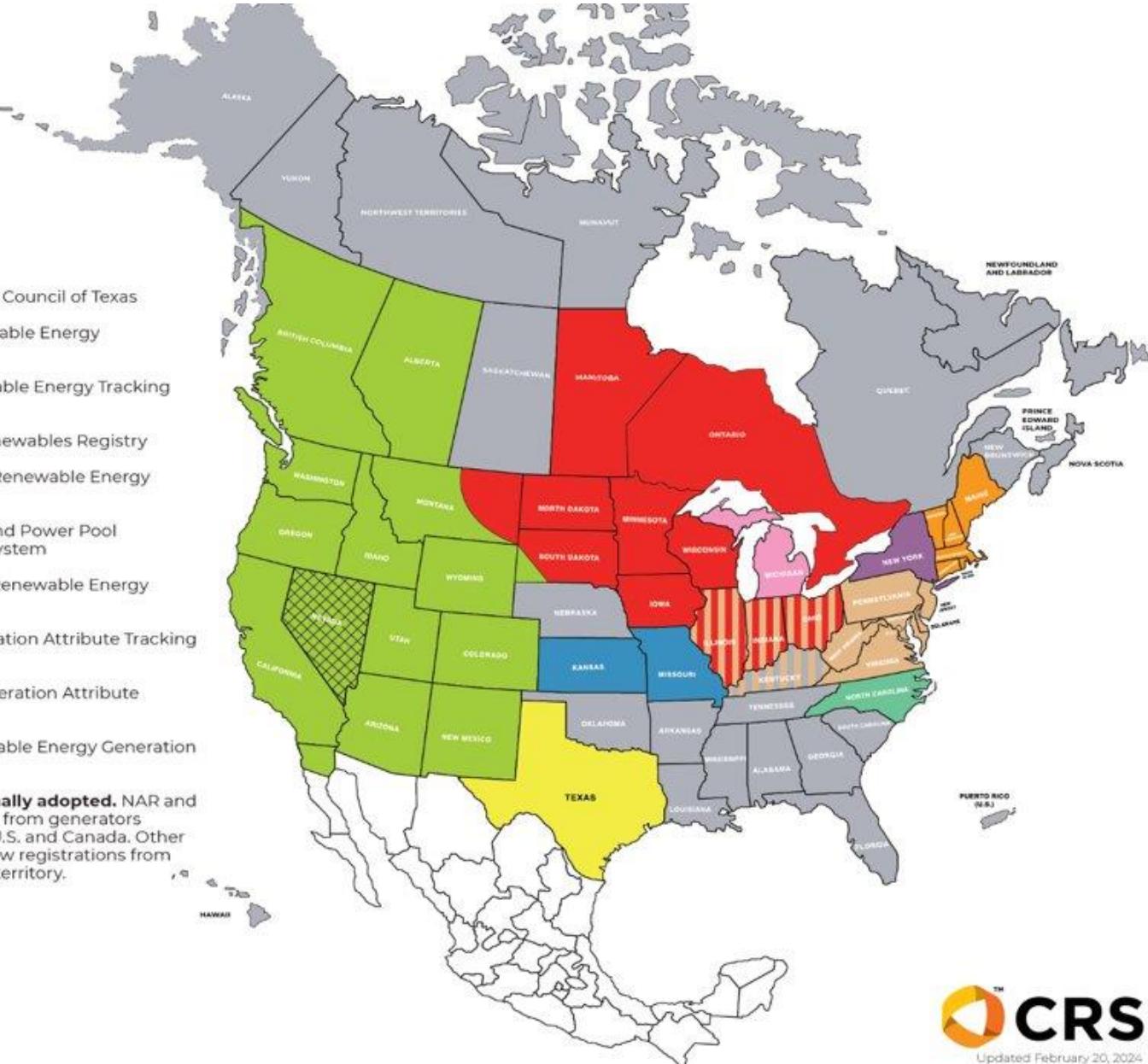
CRS Tracking System Experience

CRS has a long history of engagement with energy tracking systems:

- Created and administered the Environmental Tracking Network of North America (ETNNA)
- Developed operating rules for tracking systems (NYGATS, WREGIS, M-RETS)
- Actively participated in tracking system Advisory Committees
- Significant use of the tracking systems through the Green-e® Certification Program
- Published “Readiness for Hourly: U.S. Renewable Energy Tracking Systems” report, which is referenced in section 45V tax credit rules.
- International tracking system development and engagement: China (GEC), Colombia (EcoGox), Hong Kong (China Light & Power Inventory System), Taiwan (T-REC), Singapore, Chile, TIGRs, I-REC, Mexico, Peace RECs, EnergyTag

KEY

- █ **ERCOT:** Electric Reliability Council of Texas
- █ **MIRECS:** Michigan Renewable Energy Certification System
- █ **M-RETS:** Midwest Renewable Energy Tracking System
- █ **NAR:** North American Renewables Registry
- █ **NC-RETS:** North Carolina Renewable Energy Tracking System
- █ **NEPOOL-GIS:** New England Power Pool Generation Information System
- █ **NVTREC:** Nevada Tracks Renewable Energy Credits
- █ **NYGATS:** New York Generation Attribute Tracking System
- █ **PJM-GATS:** PJM EIS's Generation Attribute Tracking System
- █ **WREGIS:** Western Renewable Energy Generation Information System
- █ **No tracking system formally adopted.** NAR and M-RETS allow registration from generators located anywhere in the U.S. and Canada. Other tracking systems may allow registrations from outside their geographic territory.



Users of Tracking Systems Include:

- Generating facilities
- Load serving entities (e.g., utilities)
- Electricity/Certificate marketers and sellers
- Qualified reporting entities (QREs)—report MWh data to the system
- Large electricity buyers
- State/Provincial program administrators (e.g., for RPS compliance, Power Source Disclosure)
- Voluntary program administrators (e.g., Green-e® certification program)

Each user type has a unique account type with different abilities and level of access depending on the type of user.

Introduction to the Clean Energy Tracking Collaborative (CETC)



CETC (set-see)

Supports the evolution of energy tracking systems that are essential to the clean energy transition. CETC brings together regulators, government agencies, industry leaders, and tracking system operators to identify essential tracking needs and functionalities.

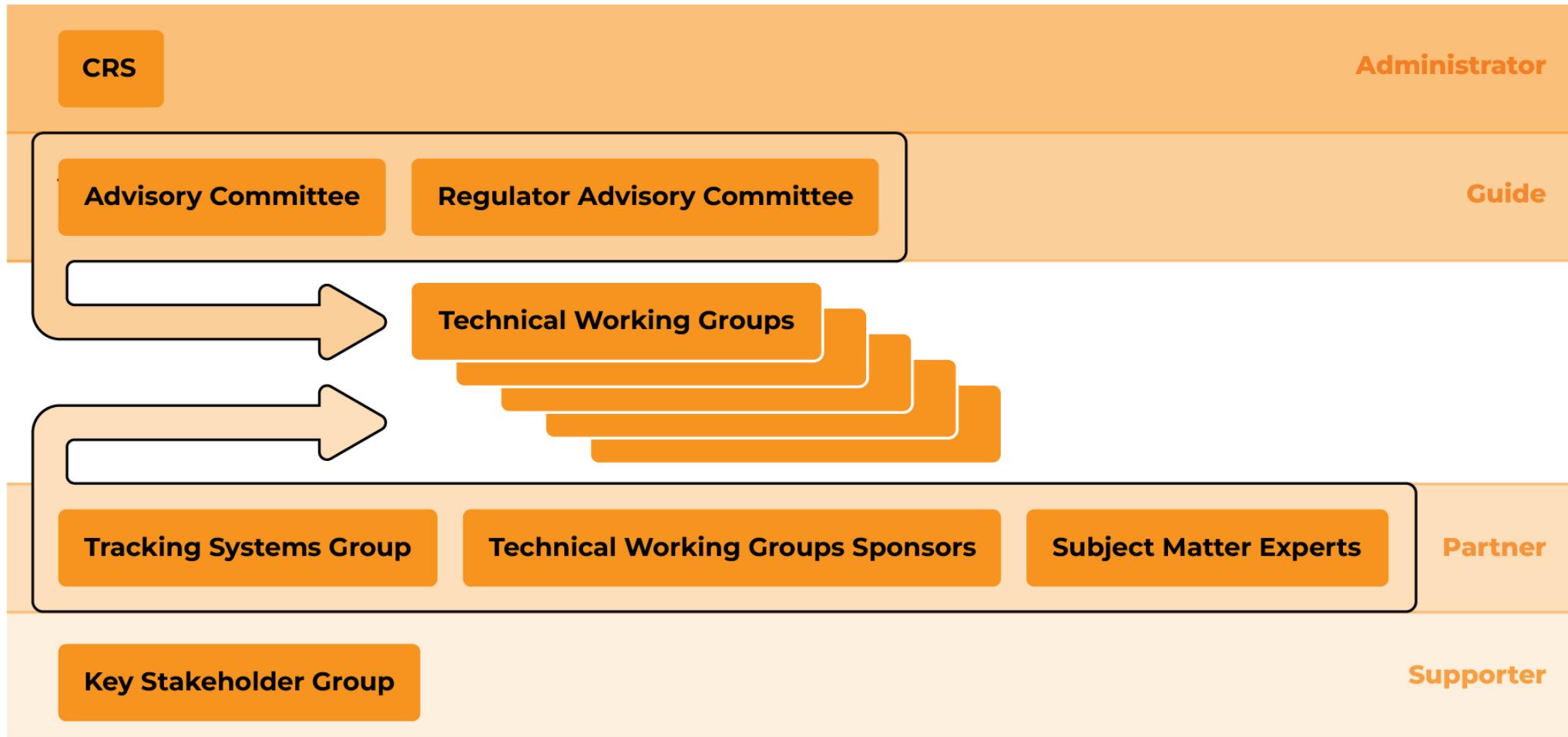


Deliverables

Through consensus, the Collaborative will:

- Establish technical recommendations to ensure consistency, transparency, and interoperability
- Facilitate collaboration between CRS, tracking systems, stakeholders and government agencies
- Guide implementation of clean energy policies and evolving buyer requirements

CETC Structure



Example Future Topics



New data

- Hourly vintages and data
- Emissions Data
- Granular Location Data
- Generation Data Sources

All-generation tracking

- Residual Mix Calculations
- Implementation
- Data for non-participating generators

New technology

- Hydrogen and Renewable Fuels (e.g., Renewable Diesel, Biodiesel)
- Carbon Capture, Utilization & Storage (CCUS)
- Storage
- Certificate Types (e.g. Alternative Energy Certificates)

Interactions between systems and programs

- Imports and exports
- APIs (other tracking systems, trading platforms, etc.)
- Retirement Types and Reasons
- Interactions with other systems (e.g. thermal, fuels, 3rd party services)
- Data quality
- Issuance and Trading Periods

Table Topics

Table Number	Topic	Leads	Organization
1	All Generation Tracking	Mark Gundrum Jaclynn Lukach	NYGATS PJM GATS
2	Clean Fuels	Mark Teklinski Rob Davis	CRS Clean Counts
3	Hourly Tracking	Nathan Iyer Katie Doyle	Google NAR
4	Storage	Renee O'Donnell	CRS
5	Intro to Tracking Systems	Rachael Terada	CRS
6	Evolution of State Programs	JB Brander Peggy Kellen	WREGIS CRS

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