The National Energy Efficiency Registry

ACEEE Energy Efficiency Finance Forum

May 24, 2016

E4

ENERGY
Promoting clean, efficient, safe solutions

ECONOMY
Growing a prosperous, low-carbon economy into the 22nd century

EQUITY
Empowering all Americans to run their homes with clean, efficient, affordable energy

ENVIRONMENT
Restoring healthy air, water and land

E4 THE FUTURE

What is NEER?

A project to develop Model Principles and Operating Rules for an Energy Efficiency Registry supported by the Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE), under Award Number DE-EE0007219, CFDA No. 81.119.

This project is led by the TN Energy Office and a steering committee with representatives from GA, MI, MN, OR & PA. NASEO and The Climate Registry are project partners.

Disclaimer

1. Views expressed are my own.

2. Full Disclosure: E4 is a subcontractor to The Climate Registry.

The Climate Registry

NATIONAL ENERGY
EFFICIENCY REGISTRY

Aspects of the development of the National Energy Efficiency Registry (NEER) are supported by the Department of Energy, Office of Energy Efficiency and Renewable Energy (EERE), under Award Number DE-EE0007219, CFDA No. 81.119.
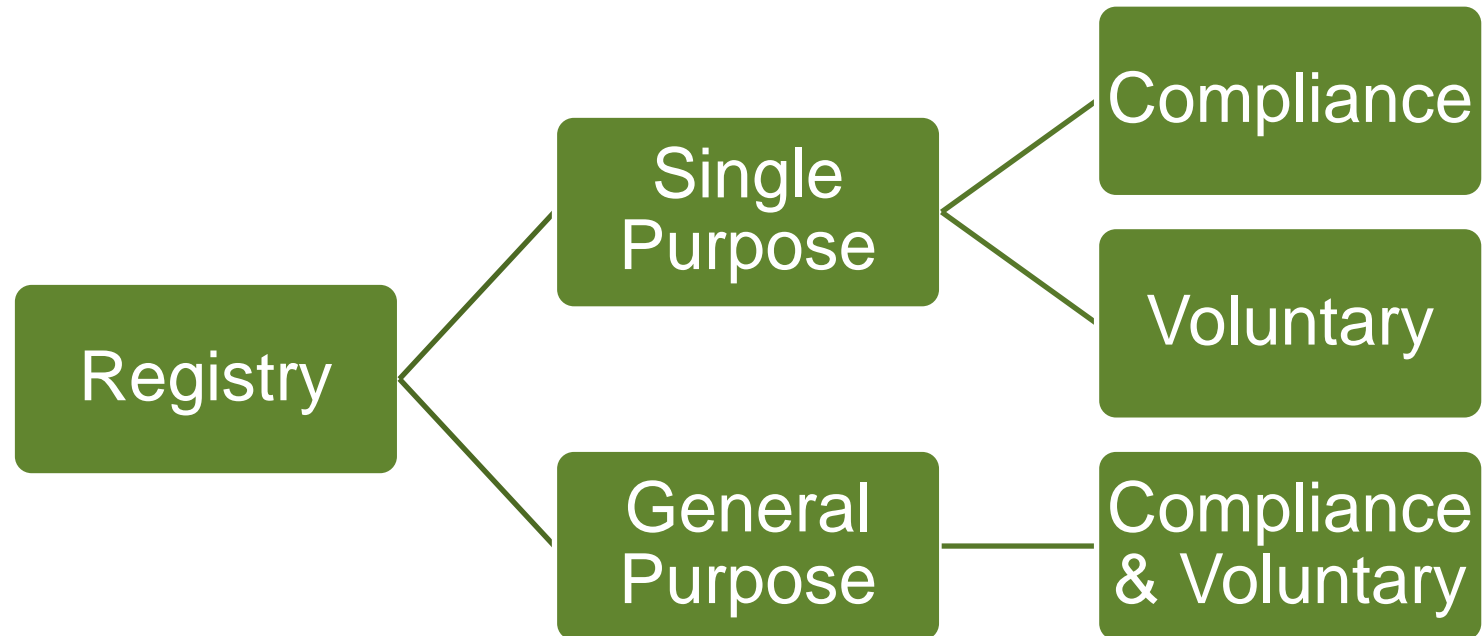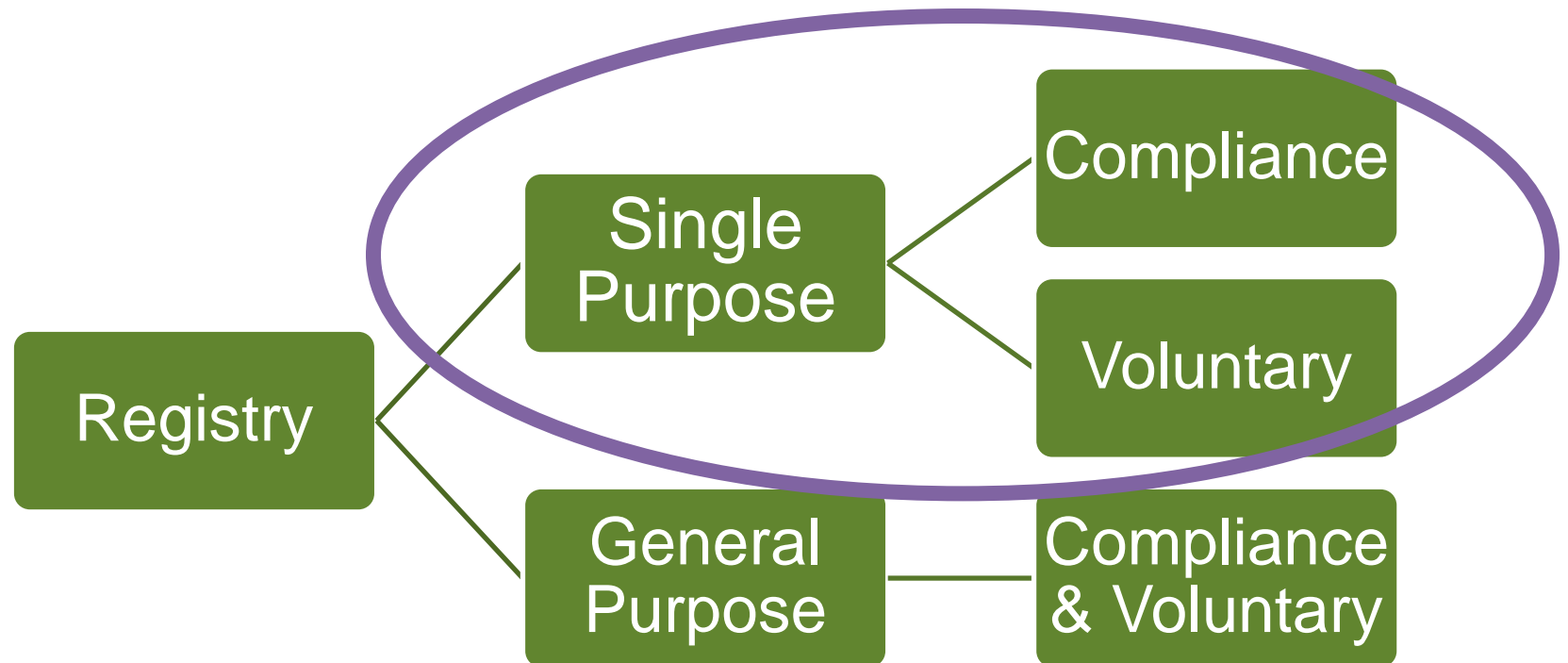
Topics for Today

- Types of Attribute Registries
- What Registries do well
- QA/QC of data and analysis is key for EE

Types of Attribute Registries

Attribute Registries:
All Shapes and Sizes

Registry

- Single Purpose
  - Compliance
  - Voluntary
- General Purpose
  - Compliance & Voluntary

Compliance/Certification Instruments

Registry → Single Purpose → Compliance, Voluntary

Registry → General Purpose → Compliance & Voluntary
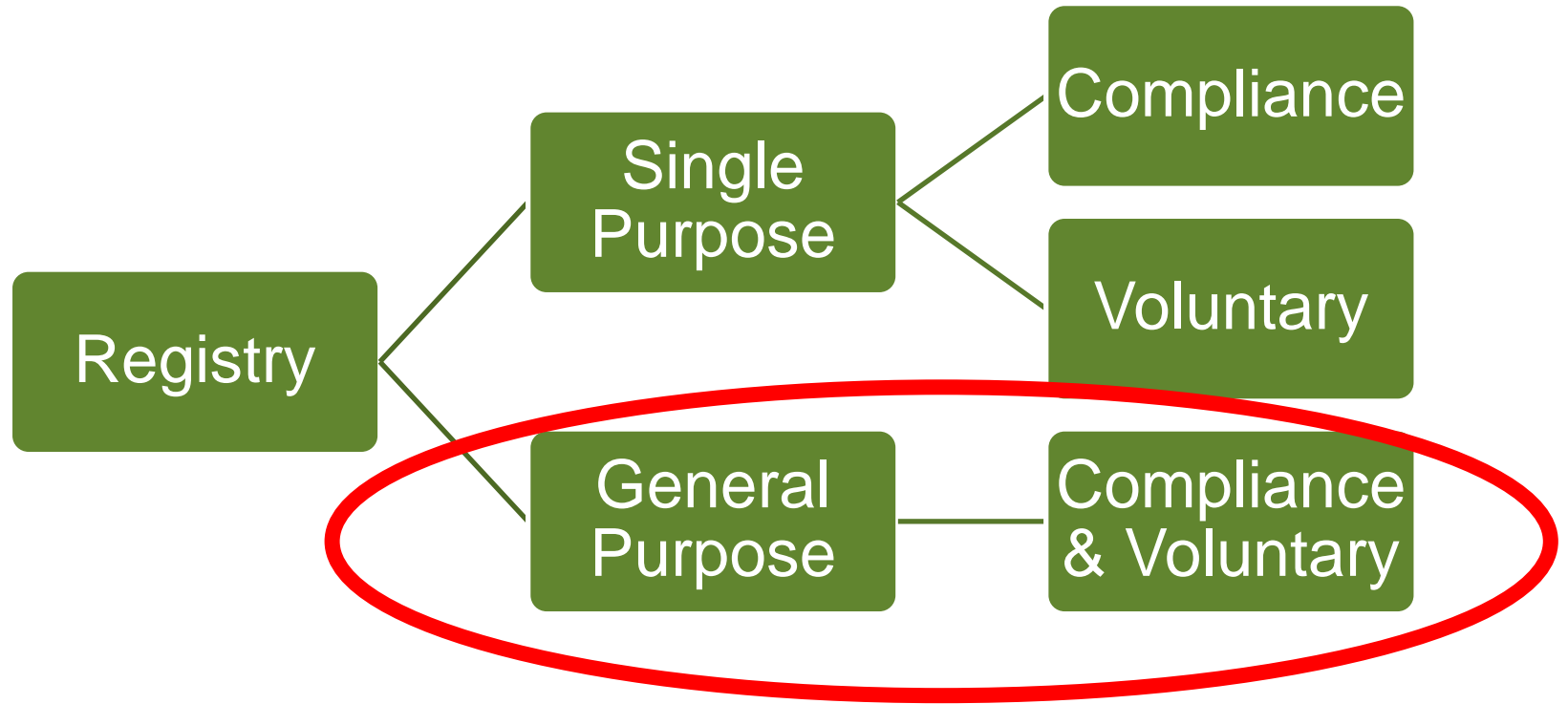
Certificates

Example Attribute Registries

Single Purpose **Compliance** Registries

- Acid Rain Program Registry
- Ozone Transport Commission NO_x Registry
- RGGI Allowance Registry

Voluntary **Certification** Registries

- Green-e
- Verified Carbon Standard Registry
- Low Impact Hydropower Institute Registry

General Purpose "All Non Energy Attributes" **Certificate** Registries

- NEPOOL Generation Information System (GIS)
- PJM Generation Attributes Tracking System (GATS)
- WREGIS
- NARR
- MRETS

What Registries do well

1. Standardize, Enforce and Document Approval Process
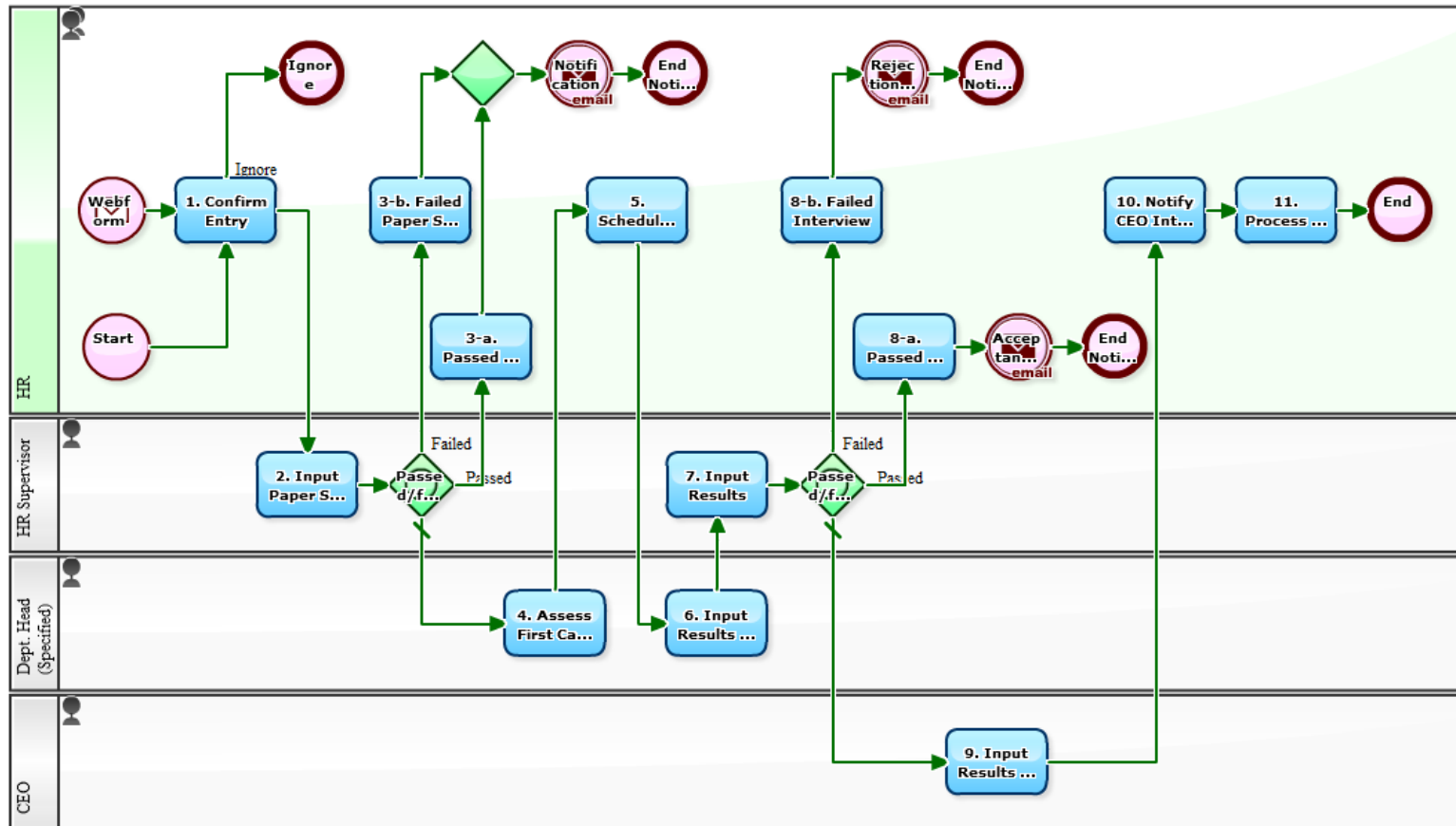
2. Enable Compliance with Standards

3. Disclosure

4. Chain of Custody
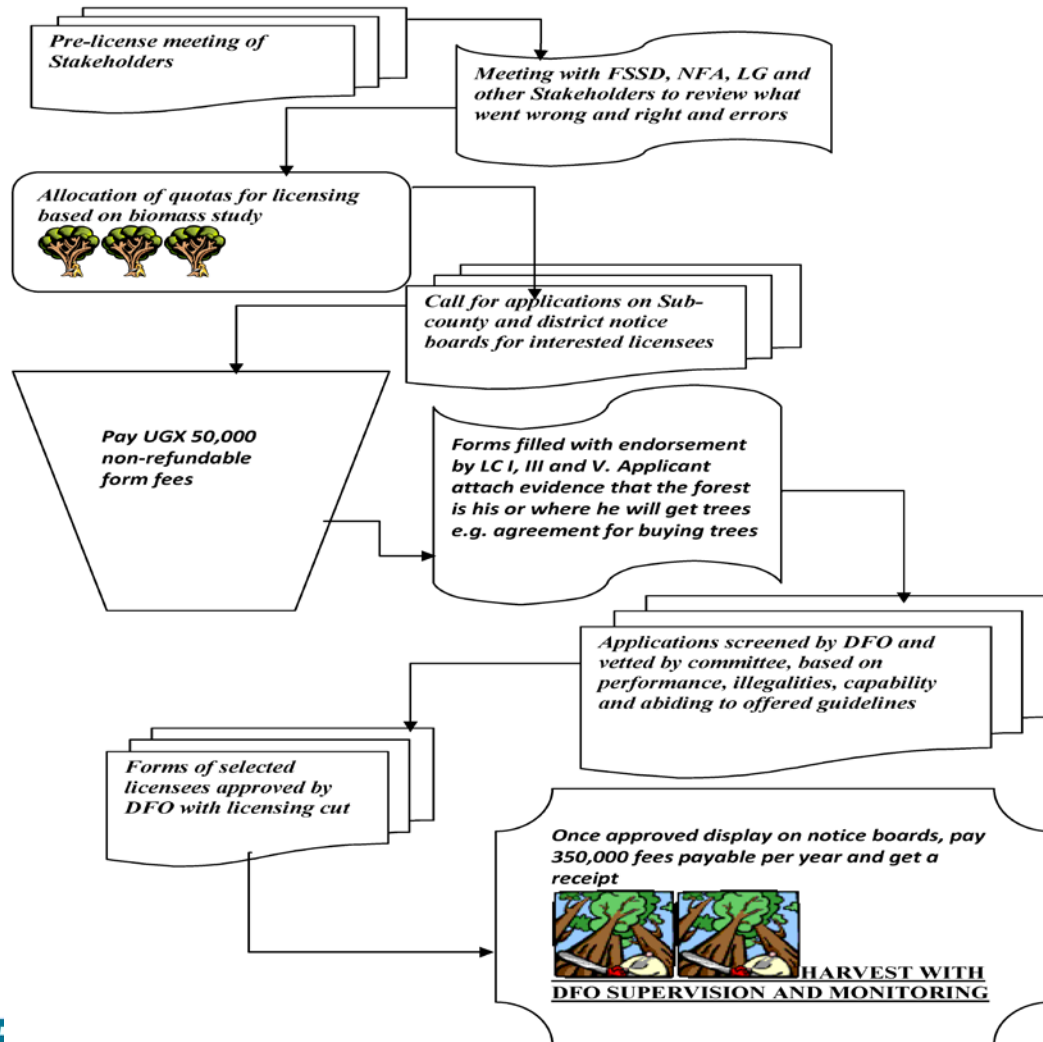
QA/QC
of data and analysis
key for EE

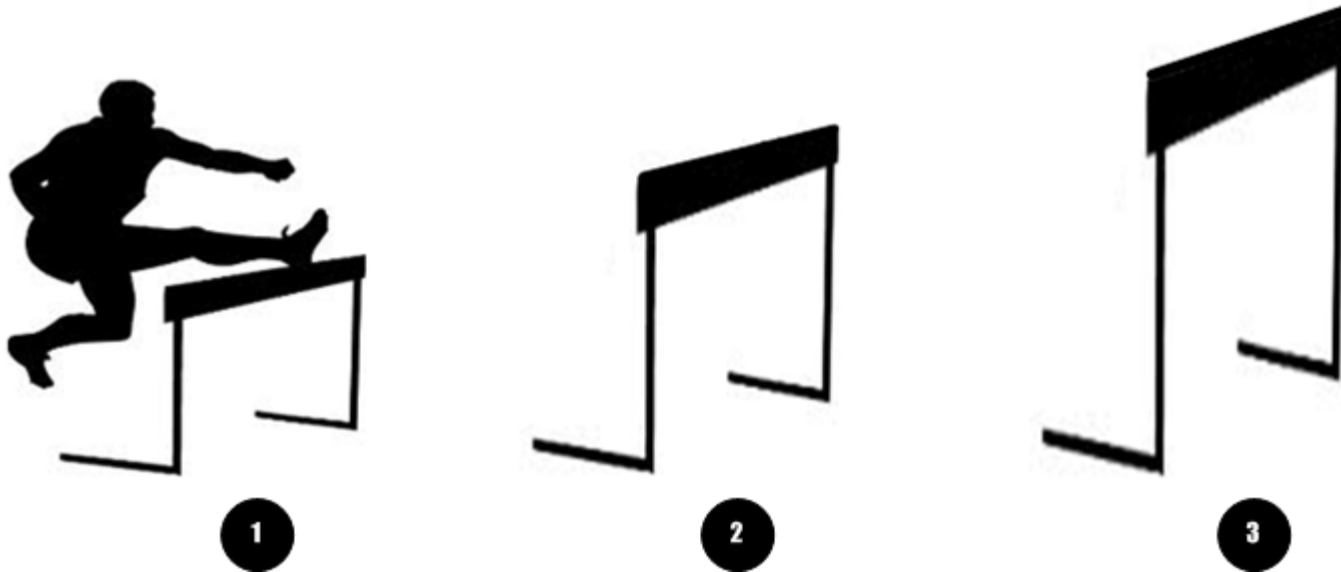# Basic Registry Elements

```
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│   Accounts   │ ───► │    Assets    │ ───► │ Asset Output │
└──────────────┘      └──────────────┘      └──────────────┘
                                                    │
                                                    ▼
┌──────────────┐      ┌──────────────┐      ┌──────────────┐
│  Instruments │ ◄─── │  Instruments │ ◄─── │ Commoditized │
│  Retirement  │      │ Transactions │      │ Instruments  │
└──────────────┘      └──────────────┘      └──────────────┘
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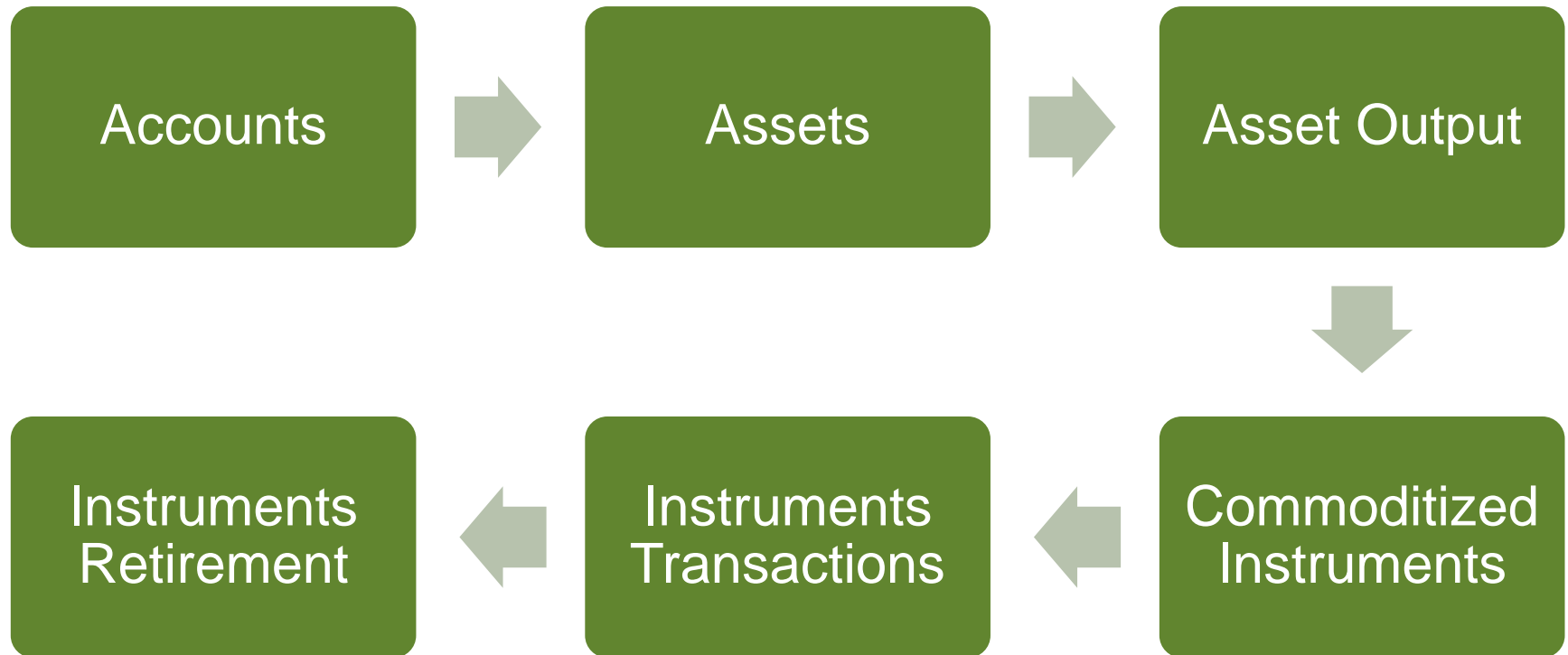
Assets

Projects, Programs or Policies

One Account > multiple Assets; each Asset only 1 Account

"Eligibility" is recorded here

Accounts → Assets → Asset Output

Asset Output ↓

Commoditized Instruments

Instruments Transactions ← Commoditized Instruments

Instruments Retirement ← Instruments Transactions

E4 THE FUTURE

Static Data QA/QC: Modules

EE Provider: NEER-AH # XXXXX
Avoided Electric Energy
On-line Asset Registration Application Required Elements
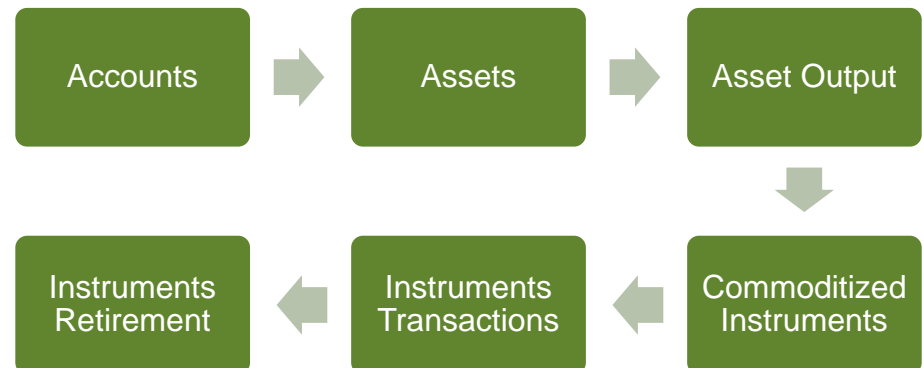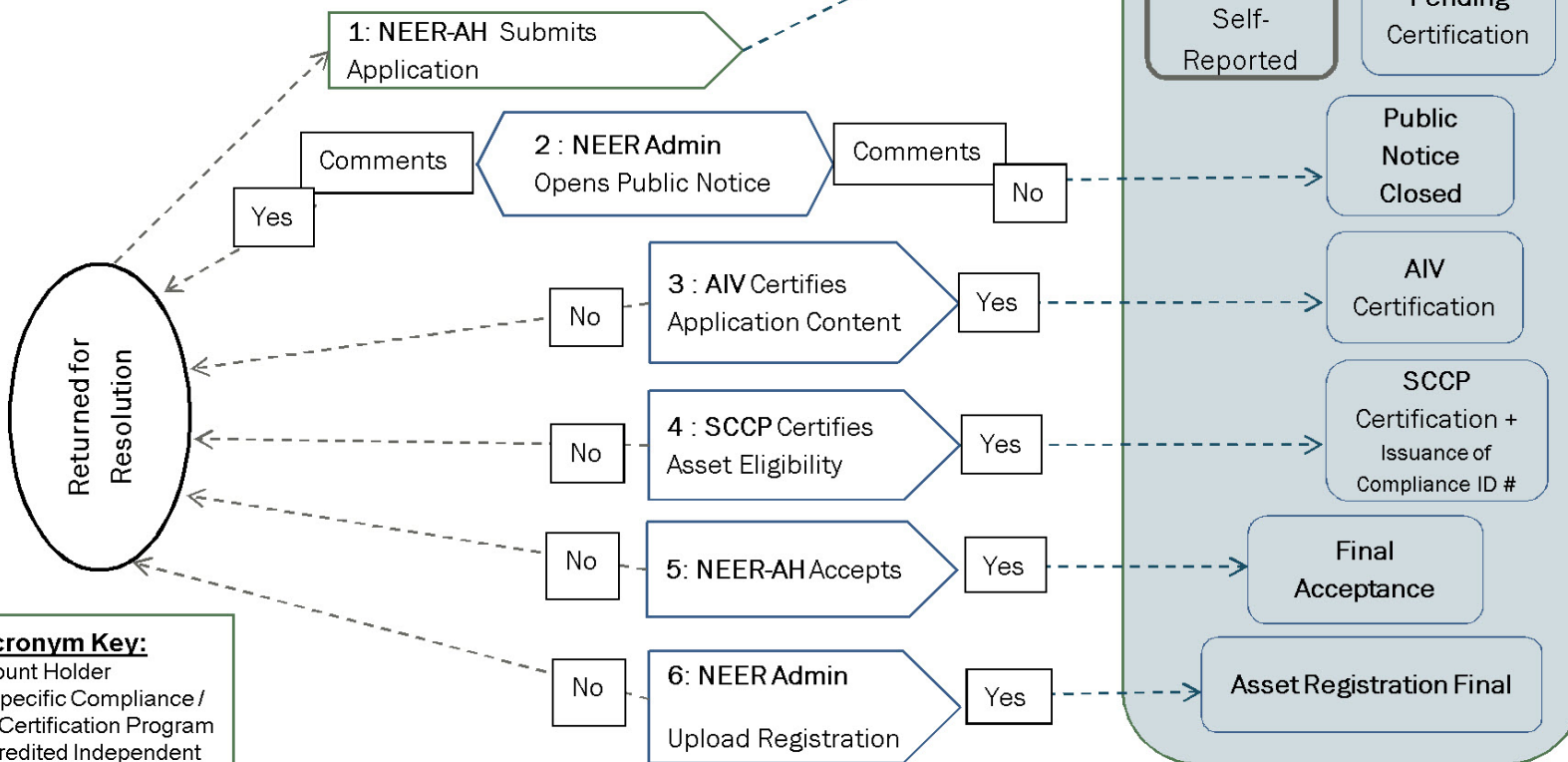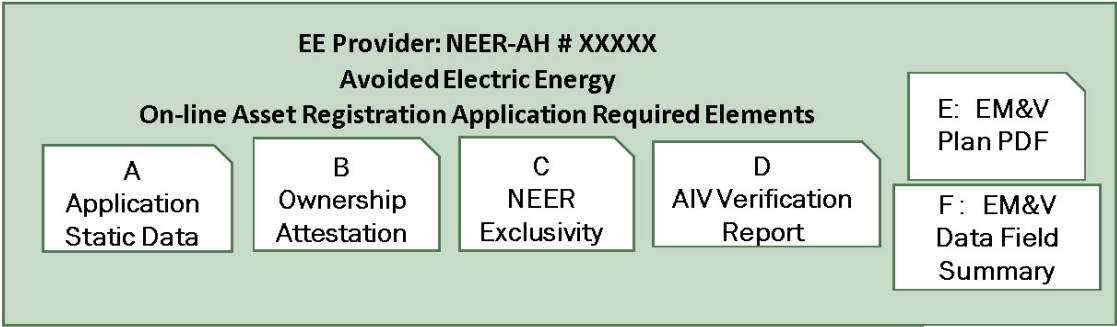
A Application Static Data	B Ownership Attestation	C NEER Exclusivity	D AIV Verification Report	E: EM&V Plan PDF
				F: EM&V Data Field Summary

Asset Registration
Notifications

Asset # YYYY Application

FINAL Self-Reported

Pending Certification

1: NEER-AH Submits Application

Comments — 2: NEER Admin Opens Public Notice — Comments

Yes

No → Public Notice Closed

Returned for Resolution

No — 3: AIV Certifies Application Content — Yes → AIV Certification

No — 4: SCCP Certifies Asset Eligibility — Yes → SCCP Certification + Issuance of Compliance ID #

No — 5: NEER-AH Accepts — Yes → Final Acceptance

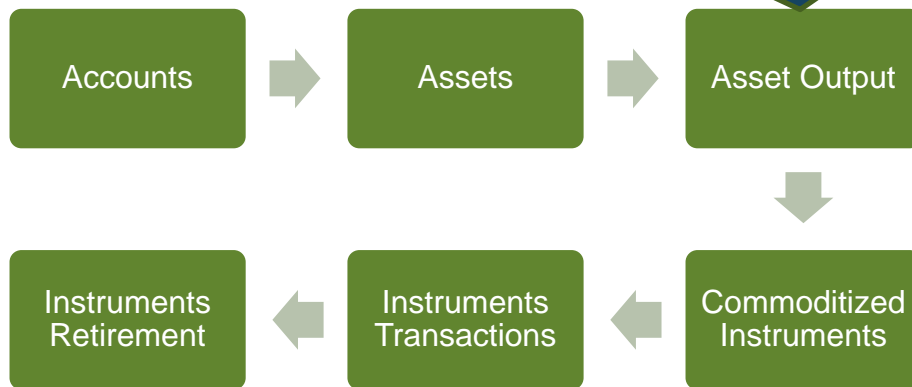No — 6: NEER Admin Upload Registration — Yes → Asset Registration Final

Acronym Key:
AH- Account Holder
SCCP- Specific Compliance / Certification Program
AIV- Accredited Independent Verifier

Asset Output

Standard Output Unit of Measure & Vintage

"Verified MWhs" live here

Accounts → Assets → Asset Output

Asset Output → Commoditized Instruments → Instruments Transactions → Instruments Retirement

Dynamic Data QA/QC: Module

EE Provider: NEER-AH # XXXXX
Avoided Electric Energy
On-line Asset Output Application Required Elements

| X Application Dynamic Data | Y M&V Report | Z AIV Verification Report |

Asset Output Log
Notifications

Upload - Complete

1: NEER-AH Submits Dynamic Data

2 : QRE Submits Dynamic Data

NEER Admin
DATA UPLOAD

3 : Direct

4 : Automated Validation

No

Yes

FINAL Self-Reported

Pending Certification

5 : NEER-AH Accepts Uploaded data

No

Yes

Returned for Resolution

6 : AIV Certifies M&V

No

Yes

AIV Certification

7 : SCCP Certifies M&V

No

Yes

SCCP Certification

8 : NEER-AH Accepts Final Data

No

Yes

Reporting Period Asset Output FINAL Ready for Issuance

NEER Admin Issues Instrument(s)

Acronym Key:
AH- Account Holder
SCCP- Specific Compliance / Certification Program
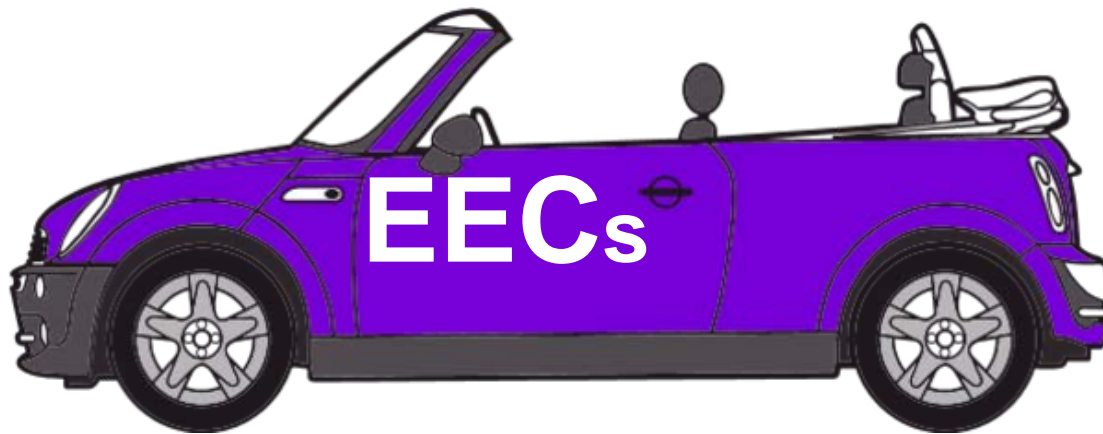**AIV-** Accredited Independent Verifier

NEER
seeking input from
EE Finance

Rigorous Due Diligence QA/QC mitigates risks

Your feedback is key for us to get it right.

Q&A / Thank you!

For more information, please contact:

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