Reporting by Electricity Importers

August 26, 2011
CALIFORNIA AIR RESOURCES BOARD

MRR Design Principles-1

- Maintain accurate GHG emissions inventory

- Support C&T objective to reduce GHG emissions economy-wide at least cost

- To maintain integrity of the cap– "a ton is a ton"—provide for

  - Sector neutrality

  - Jurisdiction neutrality

MRR Design Principles-2

Full accounting of all electricity and associated emissions:

Total electricity = In-state generation + Out-of-state generation delivered and consumed in CA
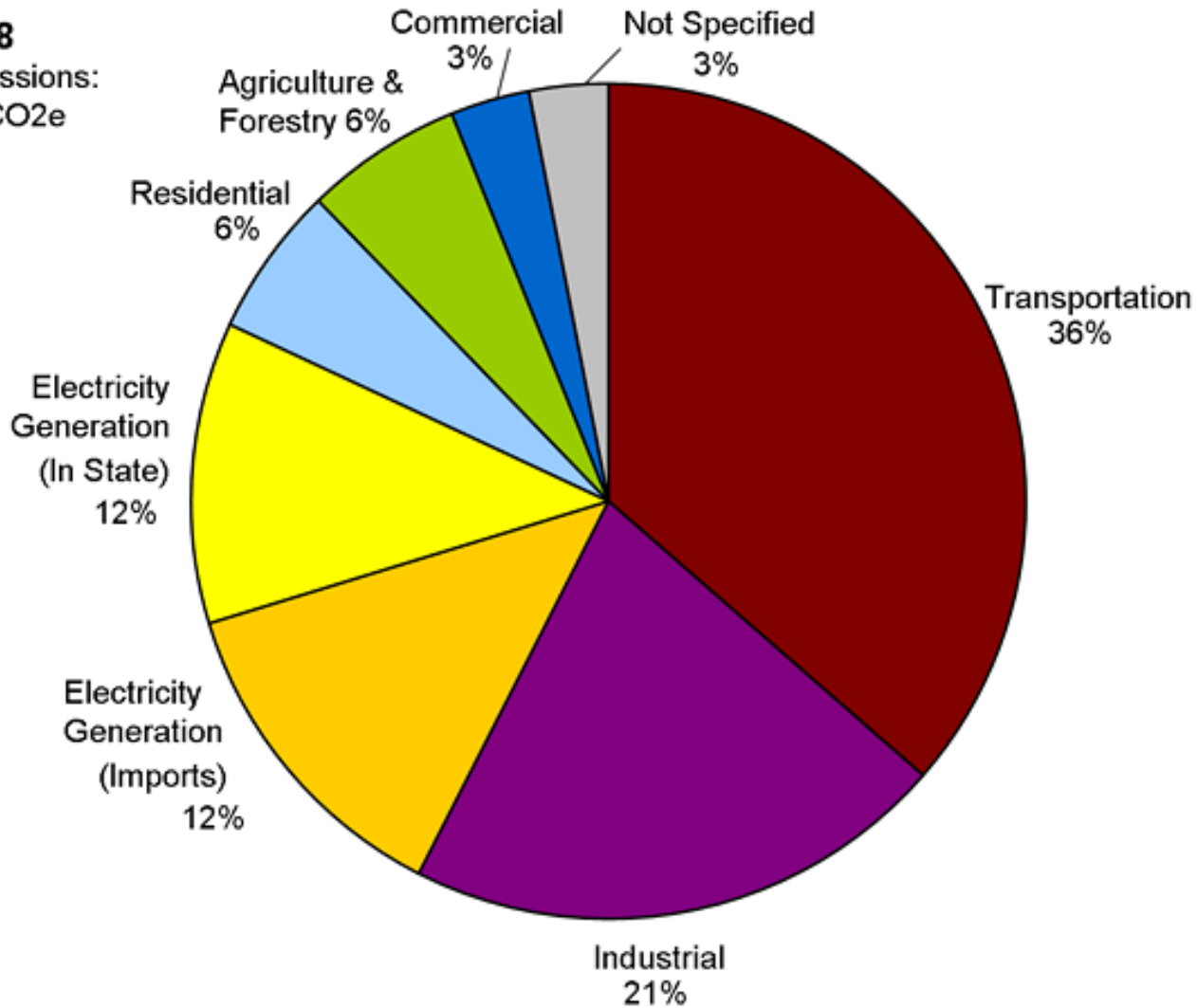
MRR: AB 32 Requirements

CHAPTER 3. Definitions

38505. (m) "*Statewide greenhouse gas emissions*" *means*

- *the total annual emissions of greenhouse gases in the state,*

- *including all emissions of greenhouse gases from the generation of electricity delivered to and consumed in California, ….*

GHG Inventory

Year 2008
Total gross emissions:
477.7 MMT CO2e

Commercial 3%

Not Specified 3%

Agriculture & Forestry 6%

Residential 6%

Electricity Generation (In State) 12%

Electricity Generation (Imports) 12%

Transportation 36%

Industrial 21%

http://www.arb.ca.gov/cc/inventory/data/graph/graph.htm .

Accessed 08-22-2011.

MRR Design Principles-3

Design data reporting to enable future linkage:

- Common point of regulation
- Common definition of delivery
- Common data source

MRR Design Principles-3.1 Common Point of Regulation

For energy transmitted across BAs, first deliverer means

- last PSE on the physical path segment that crosses a state boundary
- just before the final point of delivery.

MRR Design Principles-3.2 Common Definition of Delivery

Consistent for all first deliverers and all states with significant imports

- All deliveries must be reported to the state with the final POD, disaggregated by the first POR.

- Assures no double-counting.

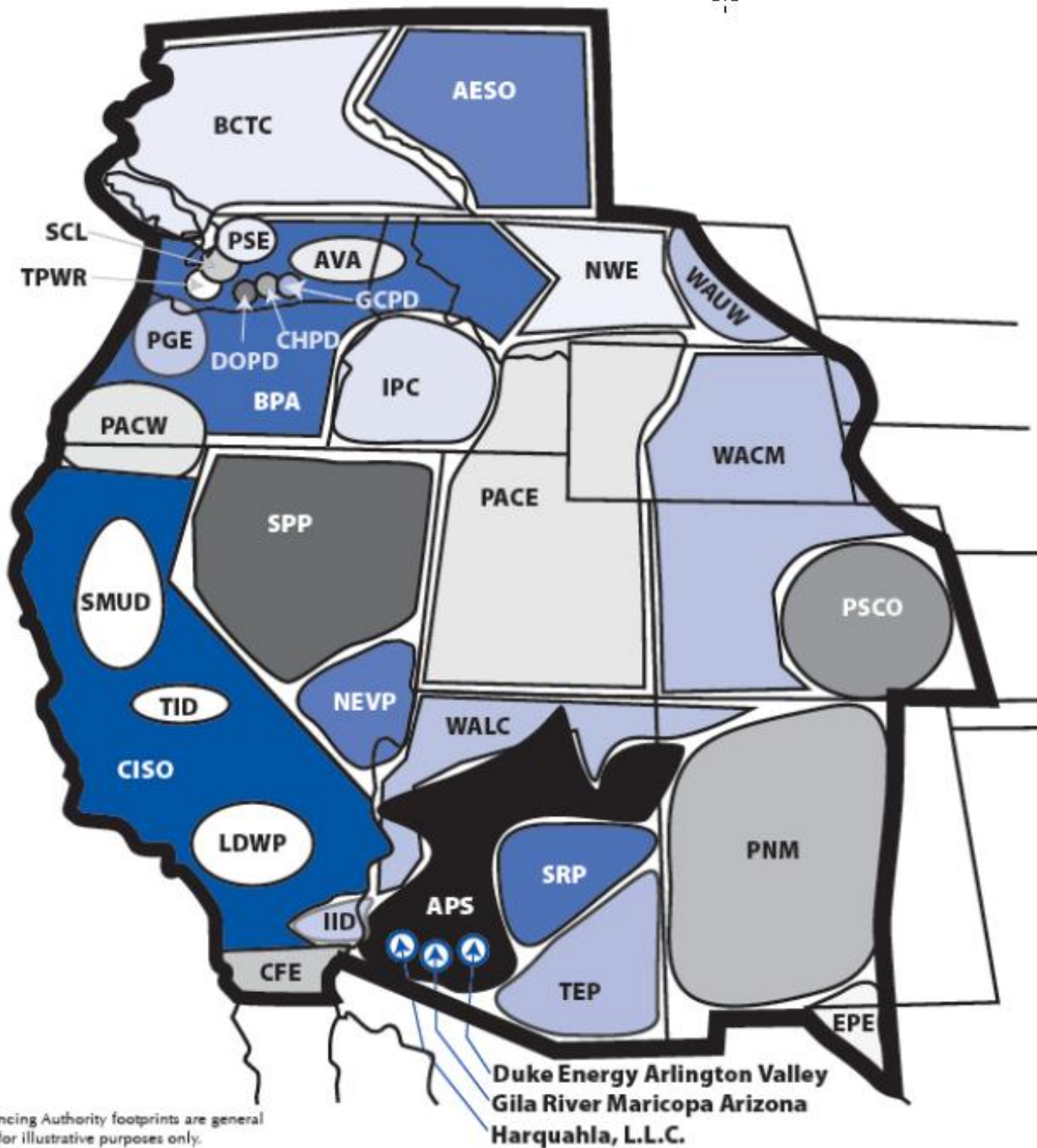- Assures neutrality between in-region and out-of-region electricity sources.

MRR Design Principles-3.3 Common Data Source

- Direct delivery across BAs is documented by NERC e-tags

- Direct delivery on transmission across state boundaries, but not across BAs, is accepted based on verified EDRs
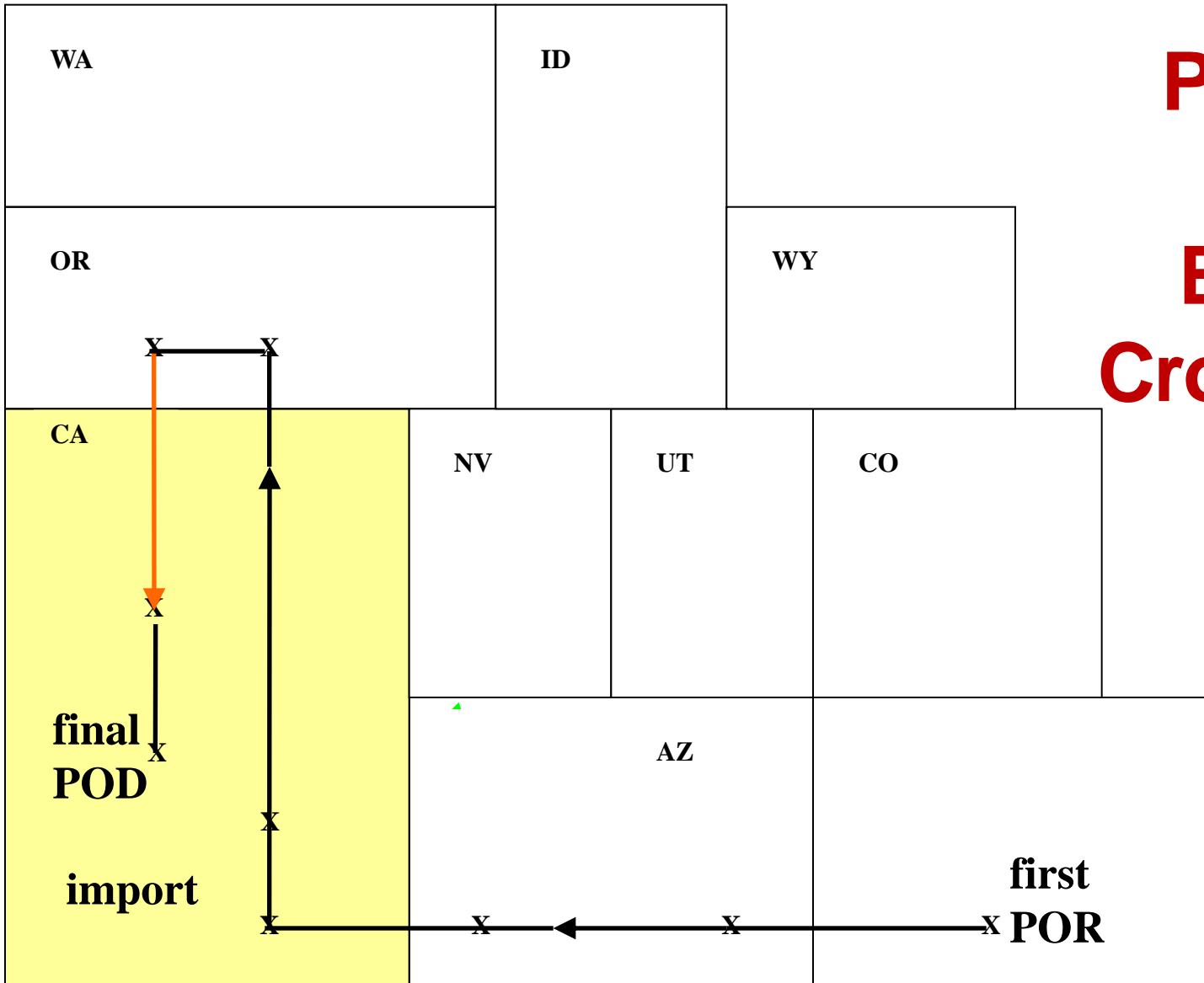
  Example:

  - Intermountain Power Plant in Utah

WECC BAs

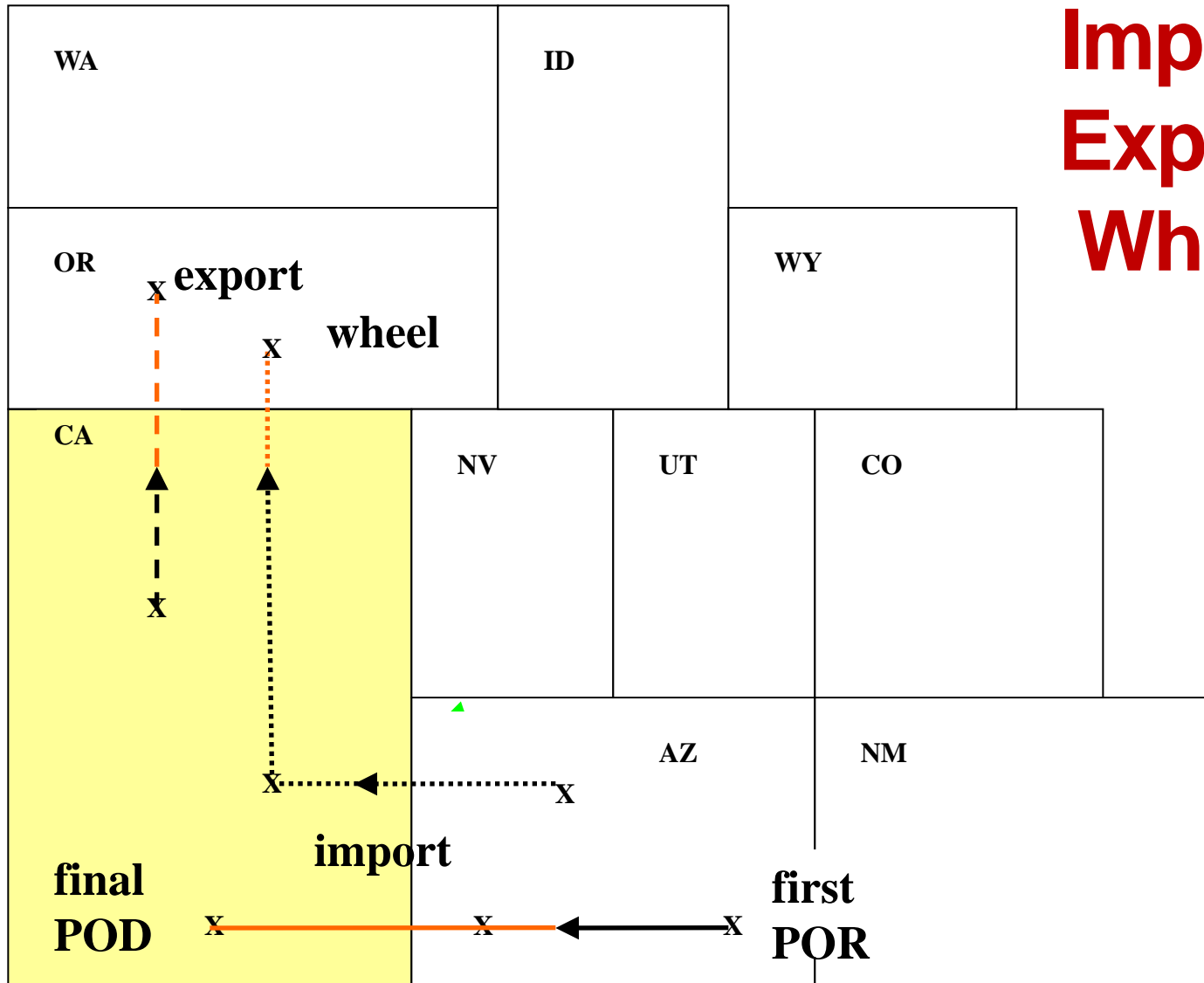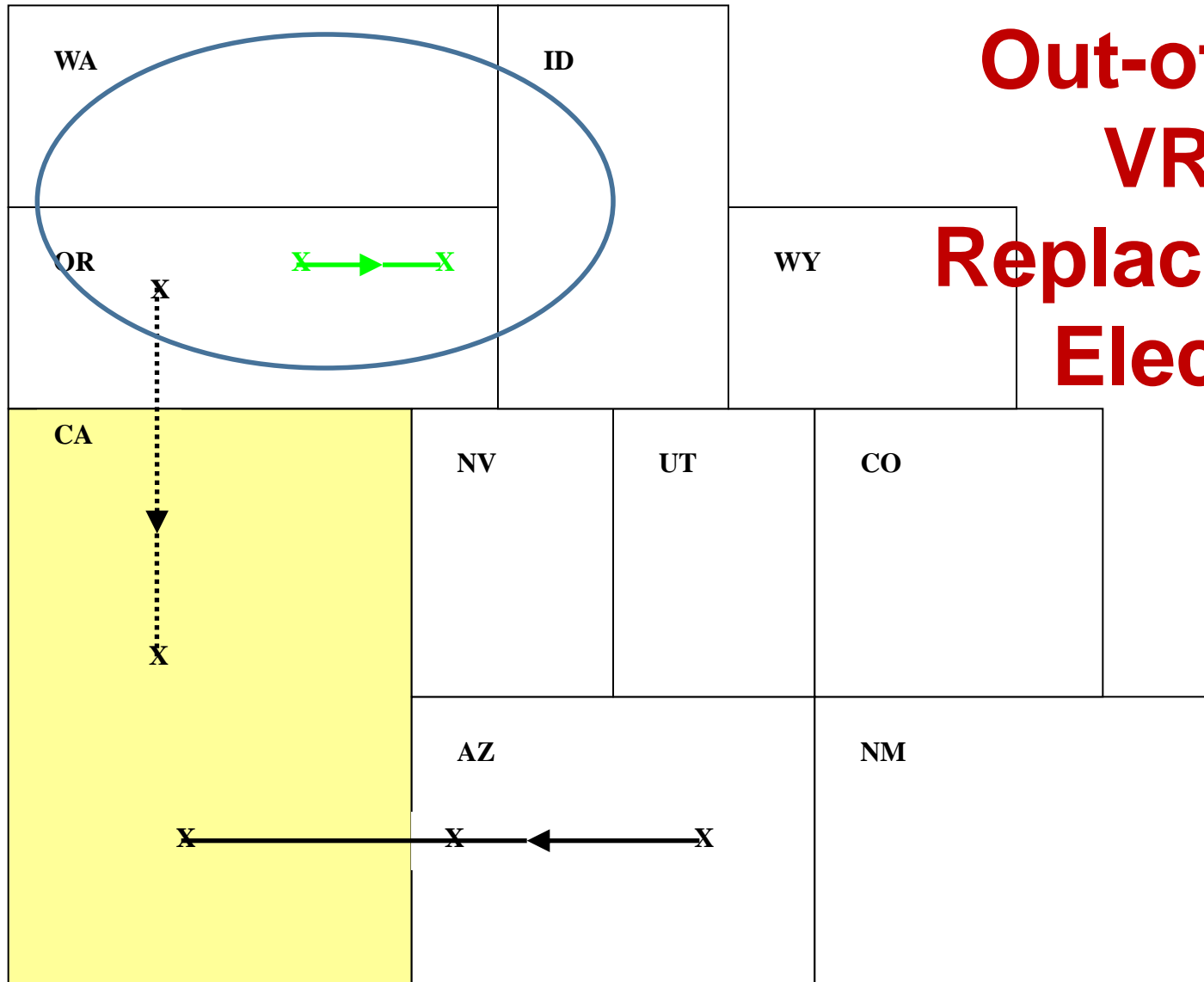Balancing Authority footprints are general and for illustrative purposes only.

Duke Energy Arlington Valley
Gila River Maricopa Arizona
Harquahla, L.L.C.

PSE on Last Border Crossing

MRR: 95111(a) General Req's
Electricity Importer-E-tag Data

CISO Tagging Template							
IMPORT			FOURCORNE345 to SP15				
			Physical Path				
CA	TP	PSE	POR	POD	Sched Entities	Con-tract	Misc
	"- - - -"	"- - - -"	"- - - - -"	FOURCORNE345	"- - - -"		
	CISO	"- - - -"	FOURCORNE345	ELDORADO500	AZPS		
	CISO	**"- -- -"**	**ELDORADO 500**	**SP15**	CISO		Yes
	CISO	"- - - -"	SP15	"- - - - -"	CISO		

Imports, Exports, Wheels

WA

ID

OR

WY

X export

X wheel

CA

NV

UT

CO

X

X

AZ

NM

X .... ◄........... X

import

final
POD

X ——————— X ◄——— X first
POR

Out-of-state VRR and Replacement Electricity

Mandatory Reporting Regulation
Key Provisions for Electricity Importers

- § 95111. Data Requirements and Calculation Methods

- § 95102. Definitions

- § 95105(d). GHG Inventory Program

Mandatory Reporting Regulation
§ 95111. Data Requirements and Calculation Methods

(a). General Requirements and Content for EDRs

(b). Calculating GHG Emissions

(g). Req's for Claims of Specified Sources

Additional Requirements:

    (c). Retail Providers

    (d). Multi-Jurisdictional Retail Providers

    (e). WAPA and DWR

    (f). Asset-Controlling Suppliers

MRR: 95111(a) General Req's

(1) GHG emissions by category, MT CO_2e

(2) Delivered electricity, MWh

(3) Imports from unspecified and specified sources

(4) Imports treated as specified when BPA is PSE at first POR

(5) Exported and wheeled

(6) Exchange agreements

(7) Verification documentation-section 95105

(8) Electricity and cogeneration units

MRR: 95111(b) Emissions Calculations

(1) From Unspecified Sources

(2) From Specified Sources

(3) From Asset-Controlling Suppliers (BPA)

(4) For MJRPs

(5) Emissions Covered under Cap-and-Trade

MRR: 95111(b)(5) C&T Emissions Calculation

CO_2e covered = (1) + [(2) - (3)] - (4) - (5) - (6)

(1) Emissions from Unspecified Sources

(2) Emissions from Specified Sources

(3) Emissions from Specified Sources not covered pursuant to C&T 95852.2

(4) Adjustment for replacement electricity associated with VRR purchases

(5) Adjustment for qualified exports

(6) Emissions recognized via linkage

MRR: 95111(b)(5) C&T Emissions Calculation

$$CO_2e_{VRR\_adjustment} = MWh_{VRR} \times AF$$

When replacement electricity is unspecified

→ AF = EFunspec'd

When replacement electricity is specified *and* its assoc'd EF < EF unspec'd

→ AF = EFspec'd

When replacement electricity is specified *and* its assoc'd EF > EF unspec'd

→AF = ~~EFspec'd -~~ EFunspec'd

MRR: 95111(b)(5) C&T Emissions *Calculation*

$$CO_2e_{QE\_adjustment} = MWh_{QE} \times AF$$

MRR: 95111(g) Req's for Claims of Specified Sources

(1) Registration of Specified Sources

(2) Emission Factors

(3) Delivery Tracking Conditions

(4) **Additional information related to resource shuffling**

(5) Substitute Electricity

MRR: 95111(g)(4) Req's for Claims of Specified Sources: Additional Information

(A) Historically Consumed in California

(B)-(C) Federally-Owned Hydro

(D) New Facilities

(E) Additional Capacity at Existing Facilities

Defined Terms

- Electricity importer and purchasing-selling entity

- Imported electricity and unspecified vs. specified sources

- Direct delivery of electricity

- Generation providing entity

- Substitute electricity

- Variable renewable resource and replacement electricity

- Qualified exports

GHG Inventory Program

NERC E-tags determine:

- Reporting entity (PSE)
- Jurisdiction with first POR
- Jurisdiction with final POD

NERC tags also specify MWh in each category:

- Imports
- Exports
- Wheels
- Qualified exports

GHG Inventory Program

To justify whether imports and exports are specified or unspecified

- Review ownership, contracts, settlements data, GPE status

Specified claims require proof of

- Registration with ARB

- Delivery

- Ownership/right to claim energy from the facility

- Generation at the time of import

Contact Us

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