

Regional Transmission Organization Governance: Comparisons and Differences with an ISO-NE Focus

New England Energy Vision: Governance Reform Technical Forum
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Framework for Comparative Analysis

What are the purposes served by governance designs?

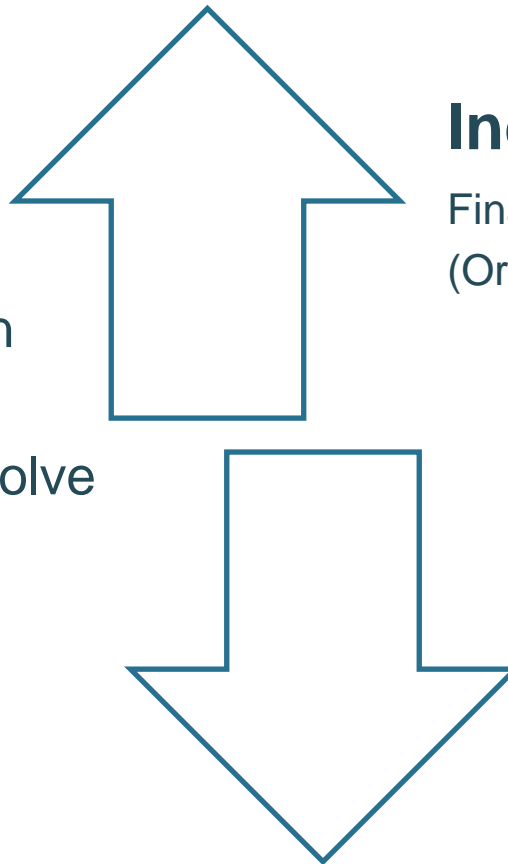
- Effectiveness
- Legitimacy
- Fairness
- Robustness

How do designs support organizational resilience?

FERC Governance Principles

Commitment to:

- Voluntary self-organization
- Regional differences
- Ability for institutions to evolve



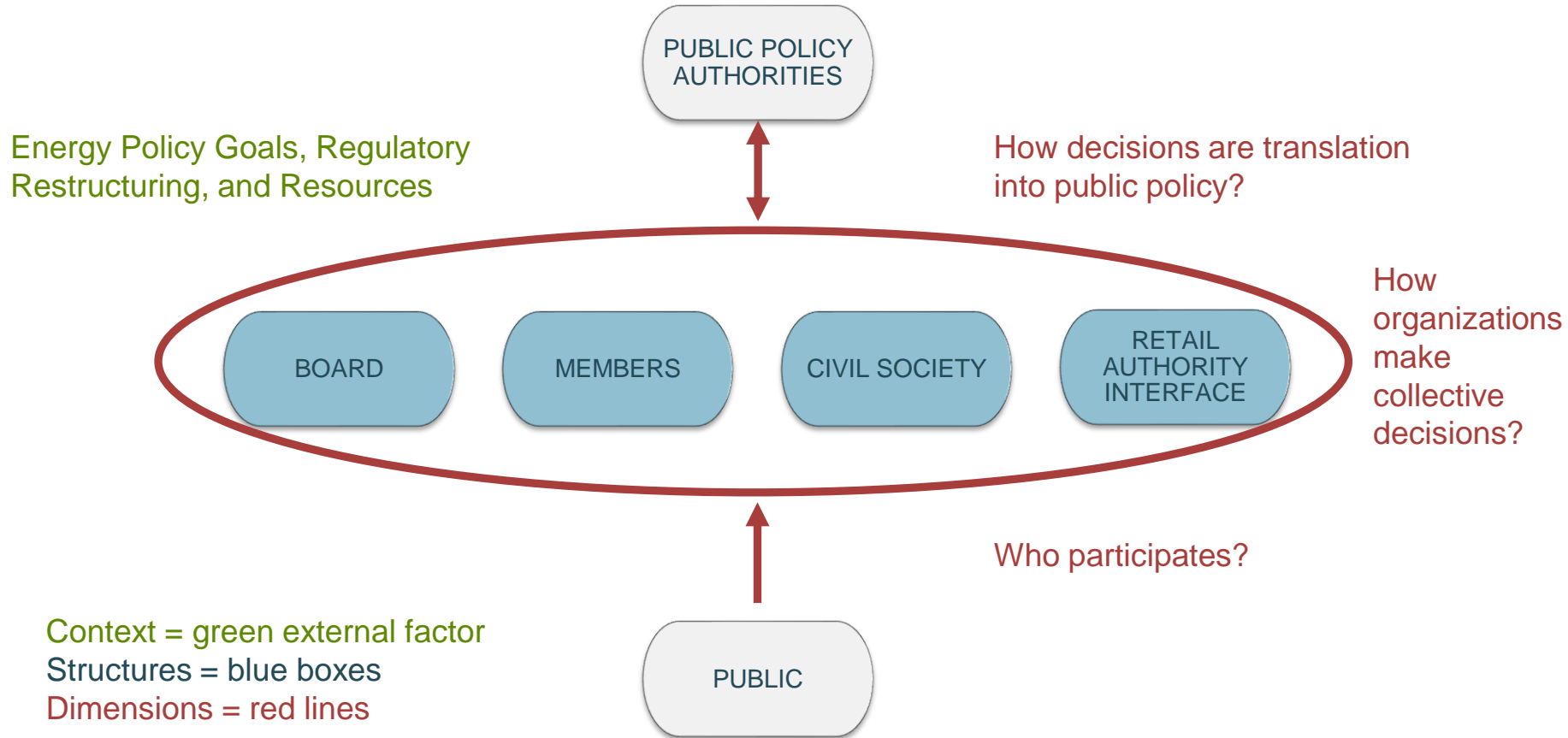
Independence

Financial, operational, political
(Order 888 and 2000)

Responsiveness

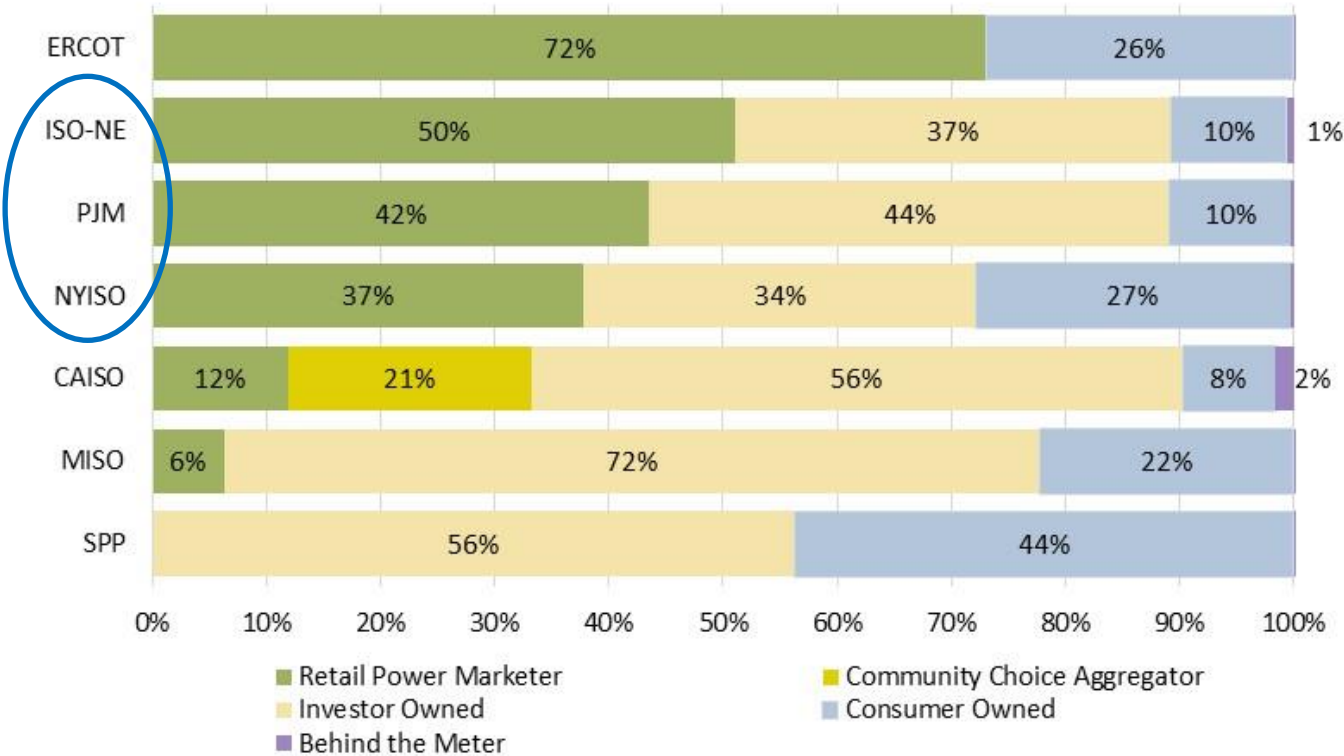
Representation, balancing
diverse interests, access,
inclusive, and minority
positions
(Order 888, and 719)

Governance: Four structures and three participation dimensions



Context: Regulatory restructuring

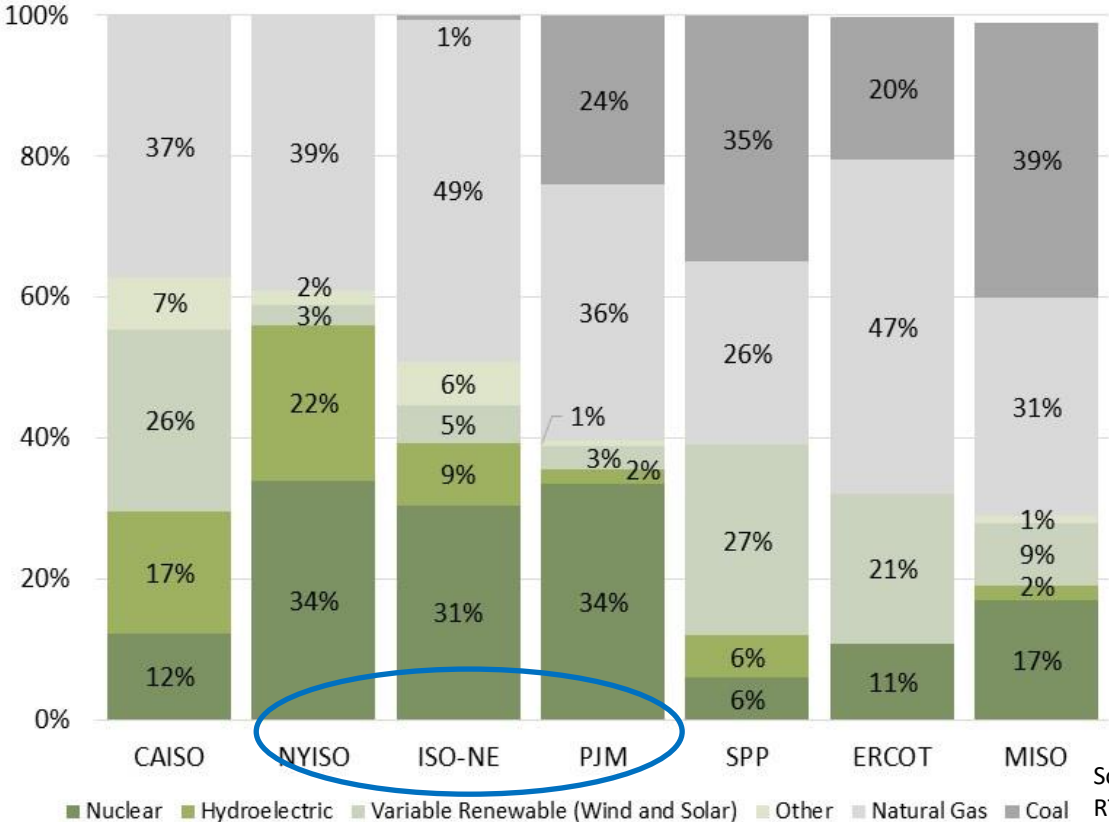
Share of retail power marketer sales in RTO regions (2019 MWh)



Source: EIA forms 861 and 861S

Context: Policy and resources

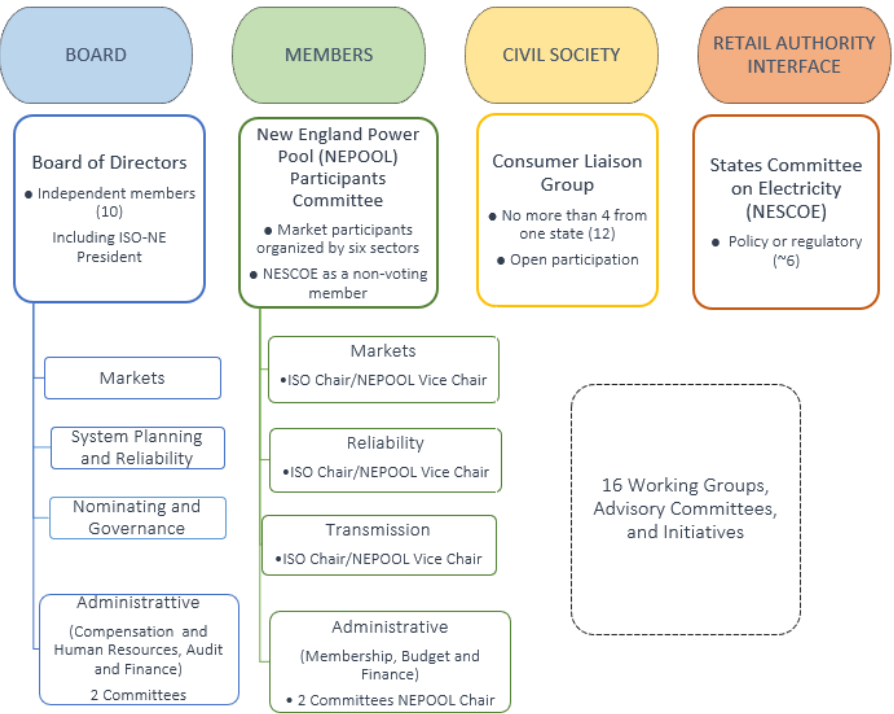
Generation mix by regional transmission organization (2019)



Source: RTO State of the Market Reports, 2019

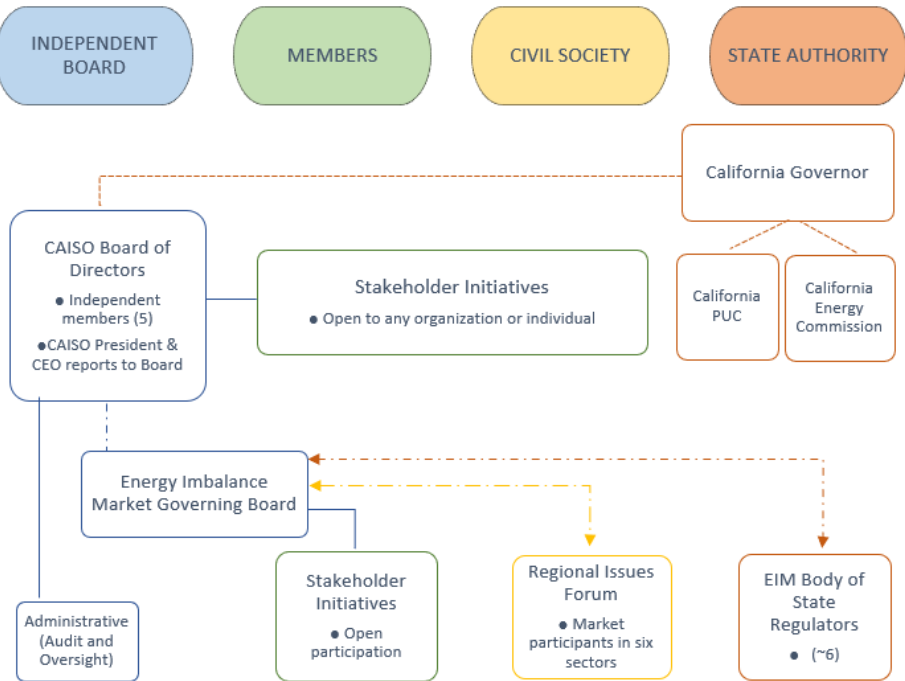
Structures: Variations in hierarchy and relationships within RTOs

ISO-New England Governance Structures



Dashed lines indicate structures that can be established ad hoc.

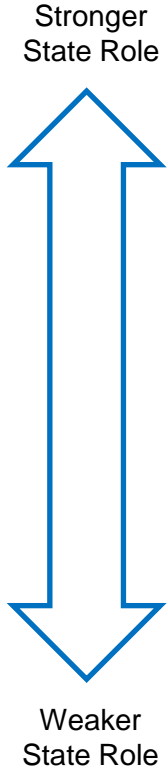
California ISO Governance Structures



Structures: Variations in hierarchy and relationships within RTOs

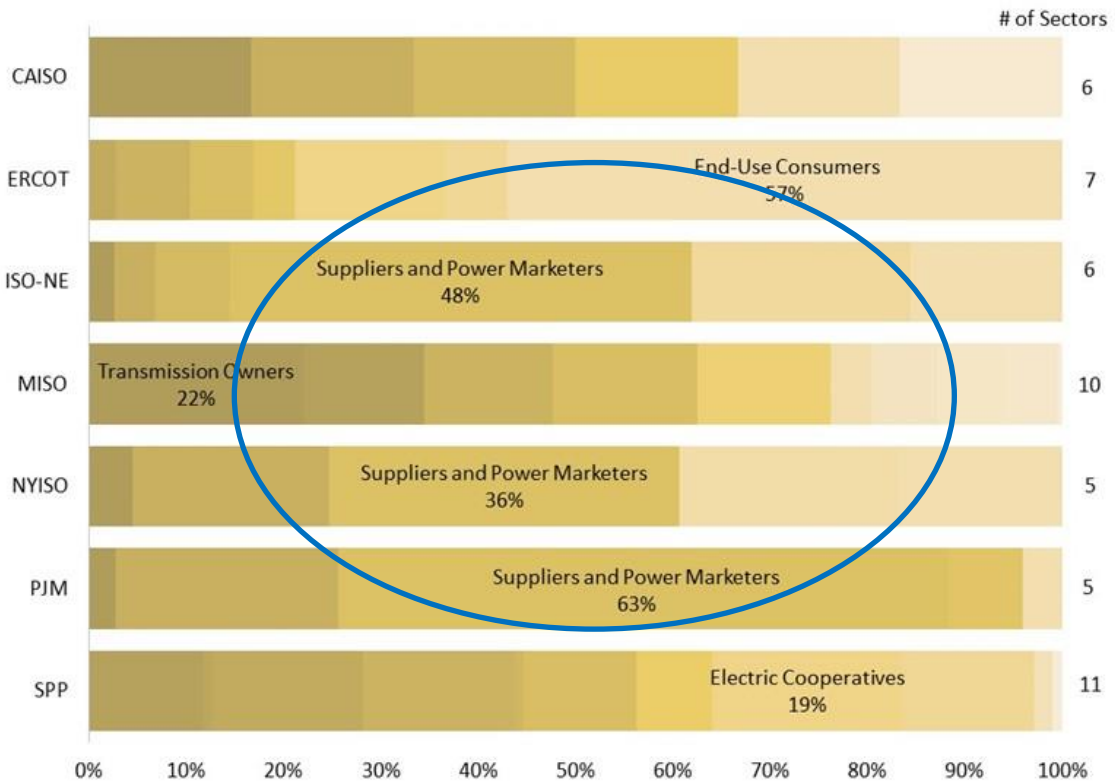
RTO/ISO	Board Selection	Members Committee	Public and Civil Society Participation	Primary State Interface
CAISO	Appointed by state Governor	No membership	Within open initiatives	Governor appointment and Senate confirmation of board
ERCOT	<i>Unaffiliated</i> Approved PUC ¹ <i>Affiliated</i> Sectors elect	Representative	Within sector	PUC and legislative oversight
SPP	Members elect	Representative ²	Separate sector	Committee of regulators
MISO	Members elect	Representative	Separate sectors	Organization of regulators
ISO-NE	Board elects	Plenary ³	Within sector and liaison group	Organization of regulators and organization appointed by governors
NYISO	Board elects	Plenary	Within sector and advisory councils	PUC oversight
PJM	Members elect	Plenary	Non-voting user group	Organization of regulators

1. Unaffiliated members are nominated by the board and approved by 4 of 7 sectors and the PUC.
2. Concurrent board/members meetings.
3. Within a separate organization (NEPOOL).

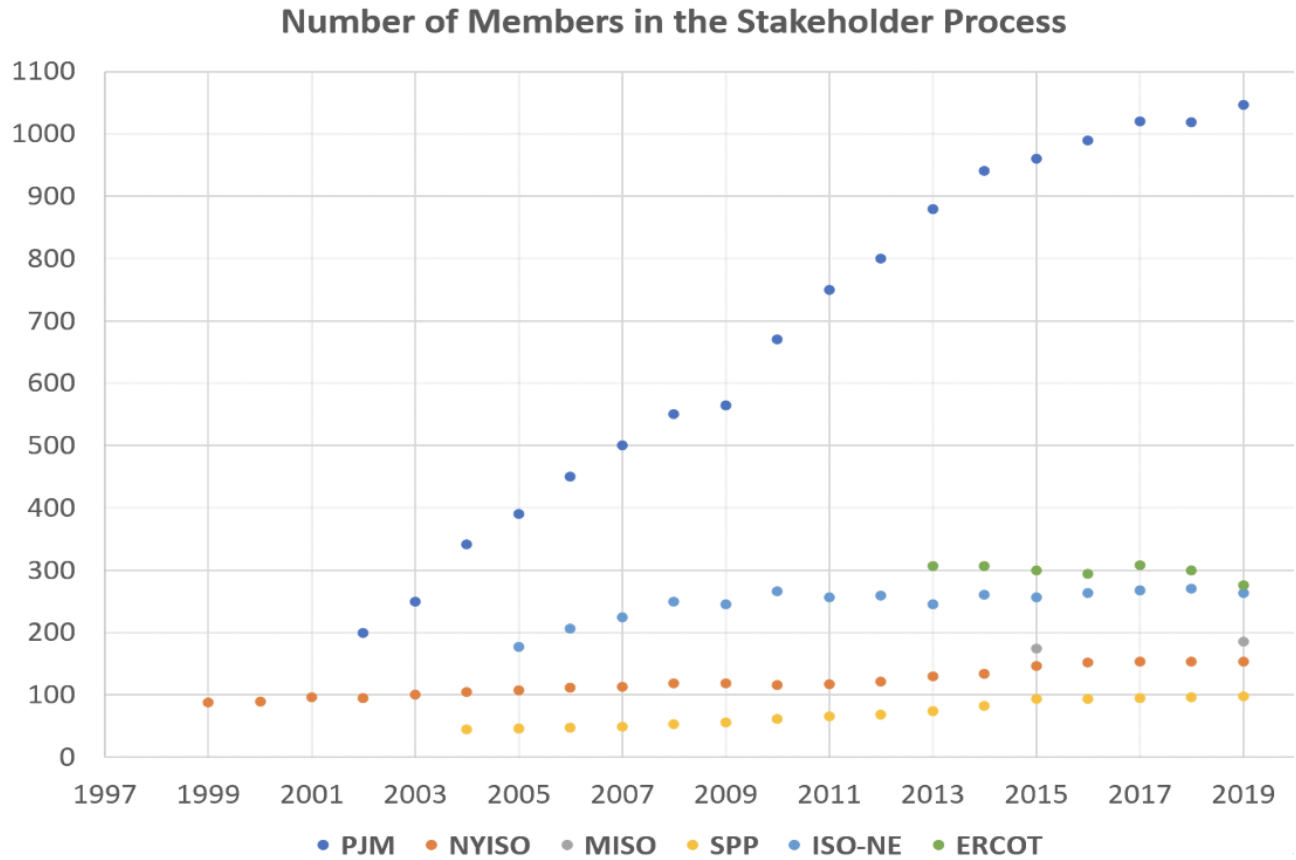


Participation Dimension: Who participates?

Share of members by sector, largest sector by count, and total number of sectors

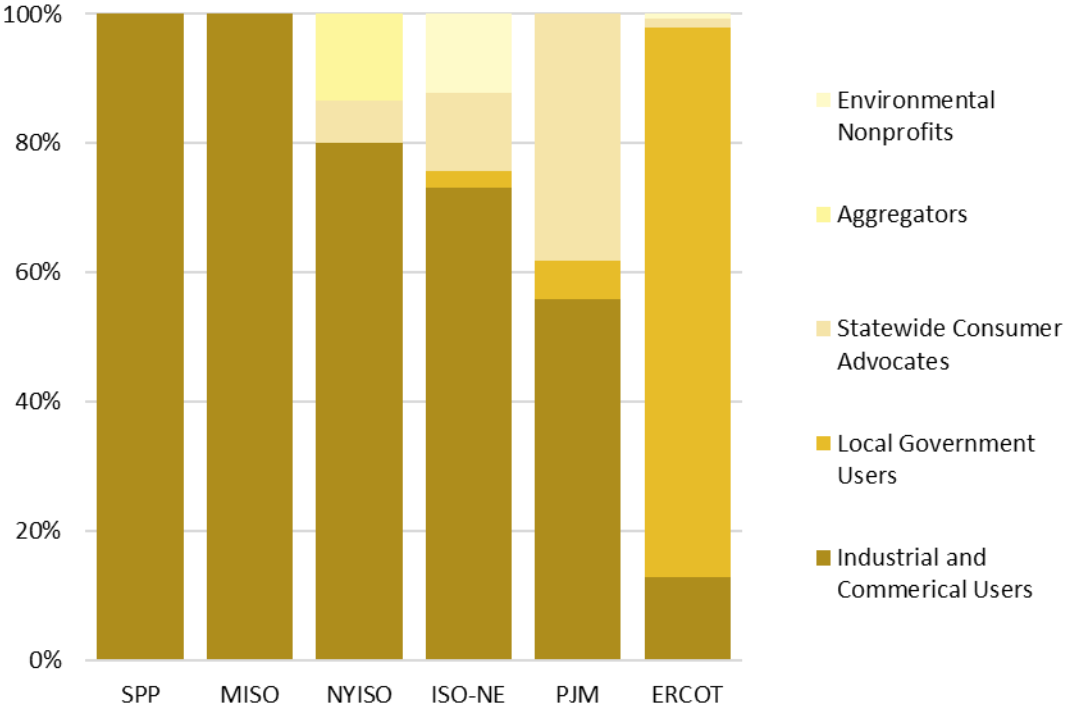


Participation Dimension: How has the number of members has grown?



Participation Dimension: Whose interests are grouped together?

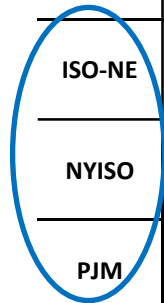
Types of organizations within the end-use consumer sector in each RTO



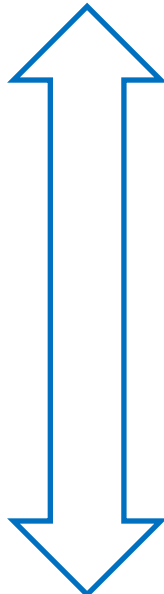
Participation Dimension: How organizations communicate?

Communication and Information Sharing at Board and Member Committee Meetings

RTO/ISO	Access to Board	Access to Members Committee	Access to Board and Committee Information
CAISO	Open to public participation	Open to public participation	Publicly available
ERCOT	Open to public participation	Open to public participation	Publicly available
MISO	Open to public participation	Open to public participation	Publicly available
SPP	Concurrent board/ members only	Closed to non-member participation	Publicly available
ISO-NE	Closed/ Liaison Committee	Closed to non-member participation unless invited	Board information not available Committee information publicly available
NYISO	Members only/ Liaison Committee	Closed to non- member participation unless invited	Publicly available
PJM	Closed/ Liaison Committee	Open to public participation	Board information not available Written comments to board and committee information publicly available



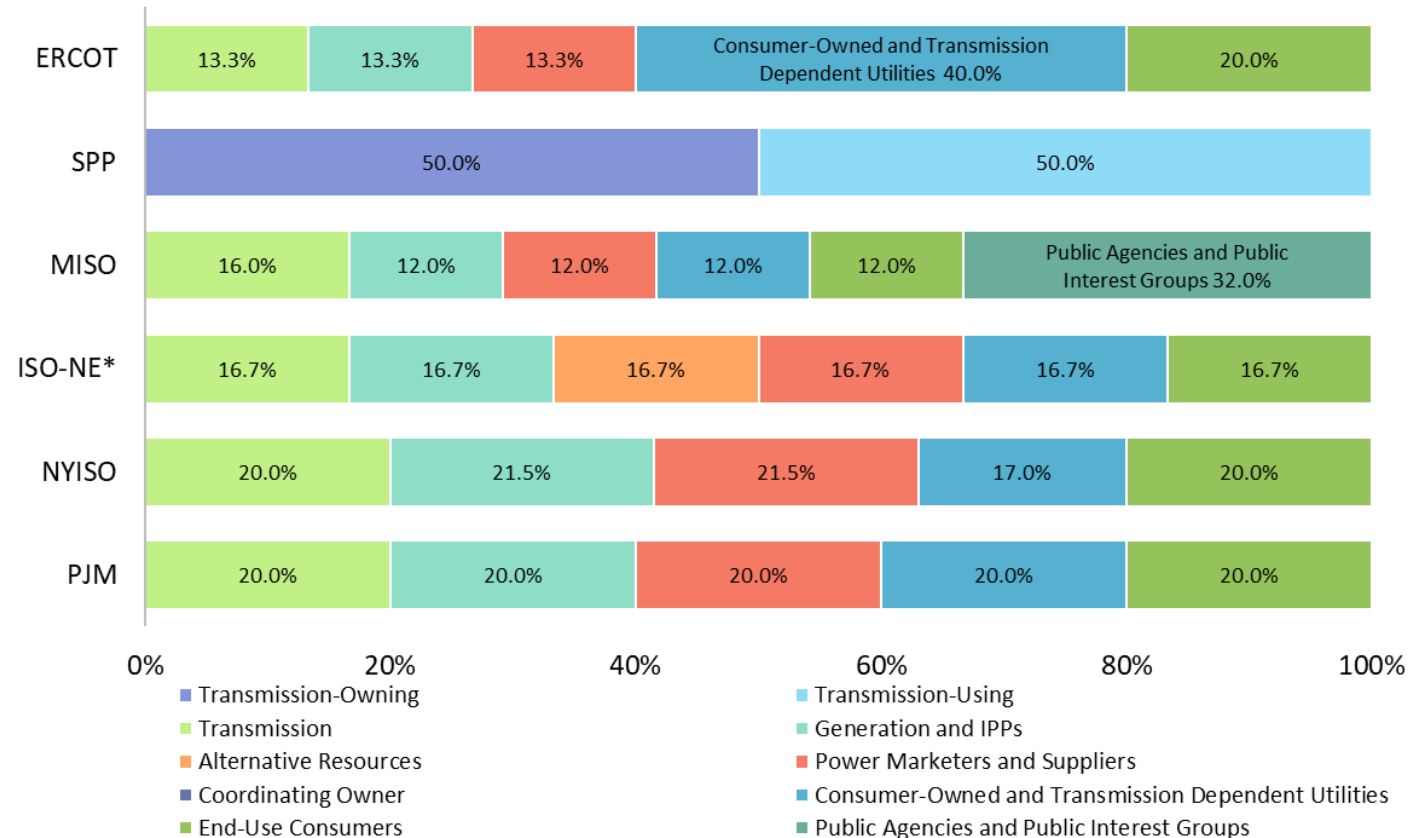
More Open



Less Open

Participation Dimension: How organizations make collective decisions?

Weighted-voting allocation by generalized sector category in each RTO

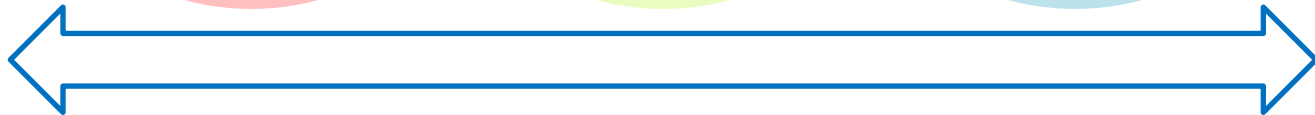
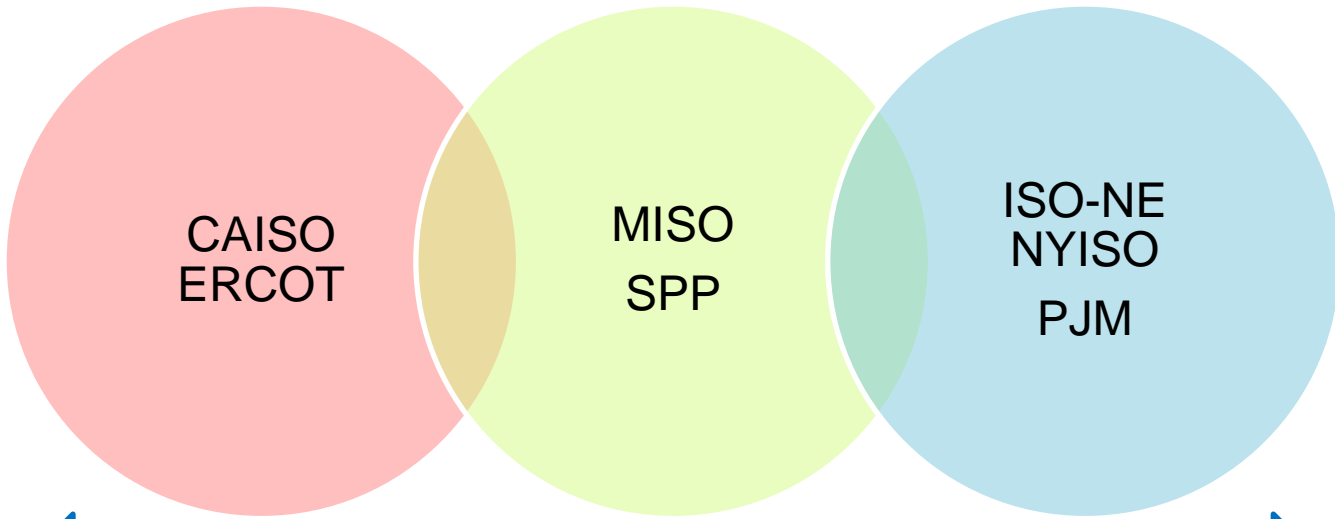


Participation Dimension: How decisions are translated to policy?

Allocation of authority to propose rule changes under §205 of the Federal Power Act

RTO/ISO	Allocation of §205 Authority	Board	Members Committee	State Interface
CAISO	Retained	Emergent		
MISO	Delegated		Advisory	
SPP	Delegated		Advisory	
ISO-NE	Competing		Co-Governance	
NYISO	Consensus		Direct Authority	
PJM	Divided		Direct Authority	

Summary of Governance Comparison



Informal Stakeholder Authority
Stronger State Role
More Open Communication
Develop Preferences
More Inclusive Participation

Formal Stakeholder Authority
Weaker State Role
Less Open Communication
Aggregate and Bargain
More Exclusive Participation

Summary: ISO-New England

- Originated from an existing power pool
- Explicitly created to further restructuring
- Relatively high share of retail marketing
- Relatively low share of variable renewable resources, but moderate low-carbon resources
- Relatively strong role for ISO staff
- Potential for vote dilution in functionally defined stakeholder sectors
- NECOE is unique
- Relatively closed communication and emphasis on weighted-voting (aggregation and bargaining vs. deliberation)
- Competing FERC filings

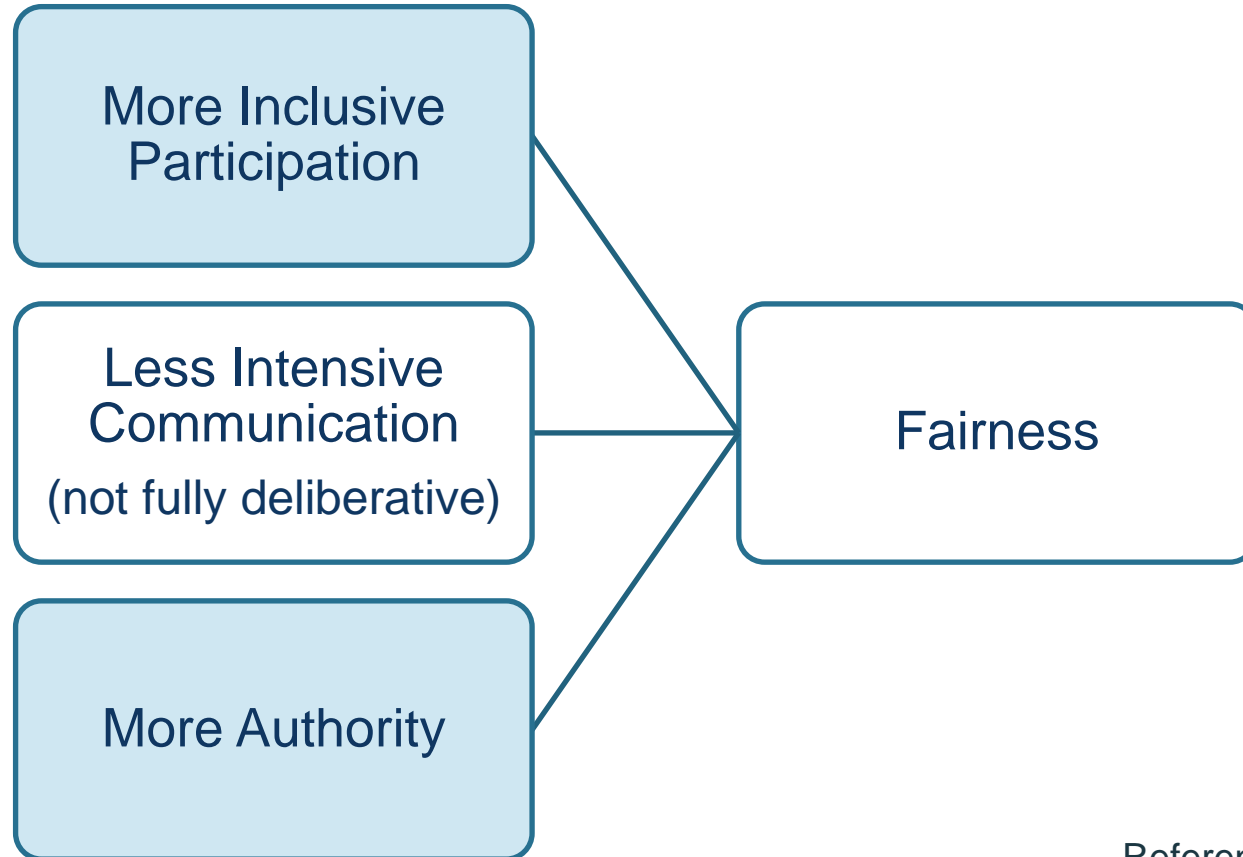
Stephanielenhart@boisestate.edu

RTO Gov Project: <https://nicholasinstitute.duke.edu/project/rto gov>

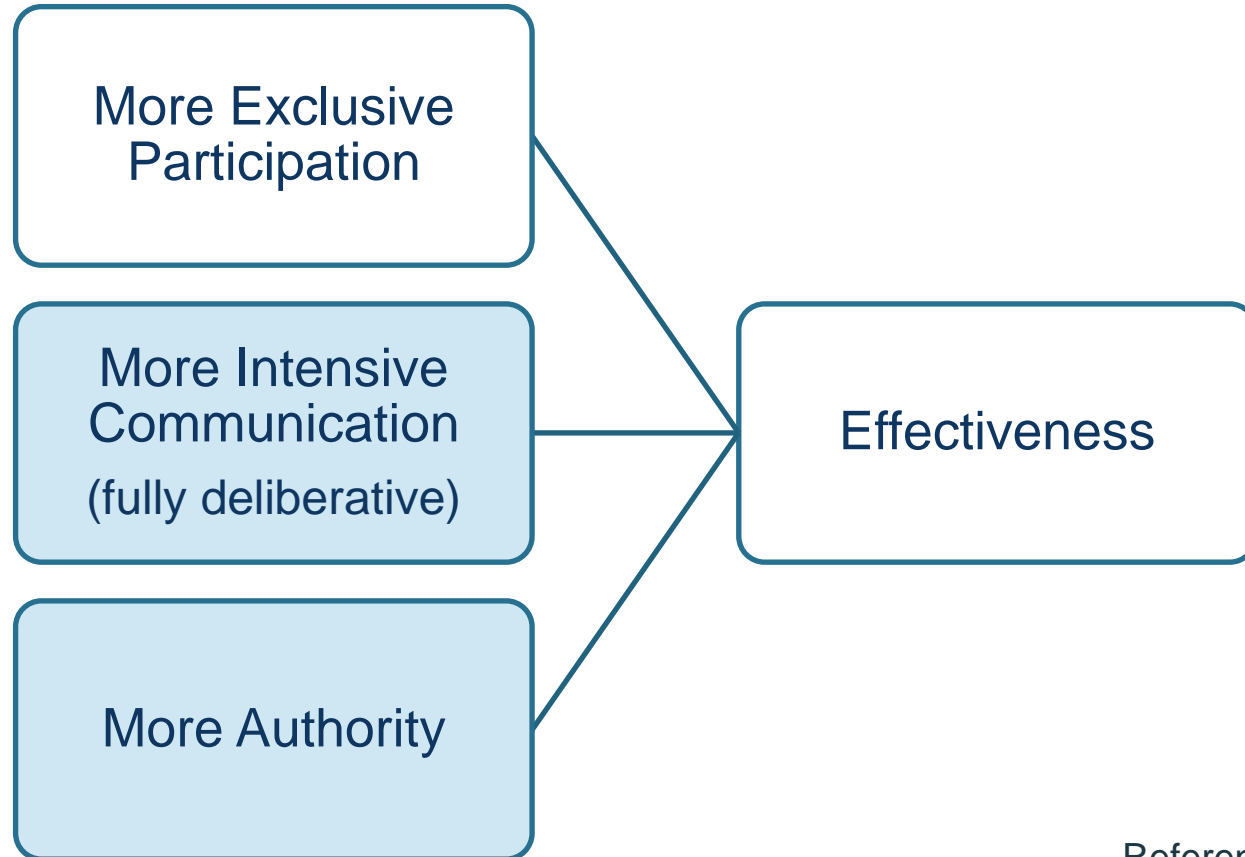
Funded by the Alfred P. Sloan Foundation and the Heising-Simons Foundation



Shift in design to further empowerment



Shift in design to further effectiveness



Summary of Governance Comparisons

Table 8. Summary of RTO Governance Comparison

	Develop Preferences		Deliberation and Negotiation		Aggregation and Bargaining		
	CAISO	ERCOT	MISO	SPP	ISO-NE	NYISO	PJM
Dominant Restructuring Status	Partial retail choice	Retail choice	No retail choice	No retail choice	Retail choice	Retail choice	Retail choice
Major Generation Resources	Renewables and natural gas	Renewables and natural gas	Coal and natural gas	Coal and wind	Nuclear and natural gas	Nuclear and natural gas	Nuclear and natural gas
\$205 Filing Rights	Retained: Board	NA	Delegated: Board / States	Delegated: Board / States	Competing: Board / Members	Consensus: Board / Members	Divided: Board / Members / TOs
Stakeholder Authority and Power	Emergent	Hybrid Board	Advisory	Advisory	Co-governance	Direct	Direct
Stakeholder Participation¹	Open self-selection	Organizational sectors	Organizational sectors	Organizational sectors	Functional sectors	Functional sectors	Functional sectors
Type of Members Committee	None	Representative	Representative	Representative	Plenary	Plenary	Plenary