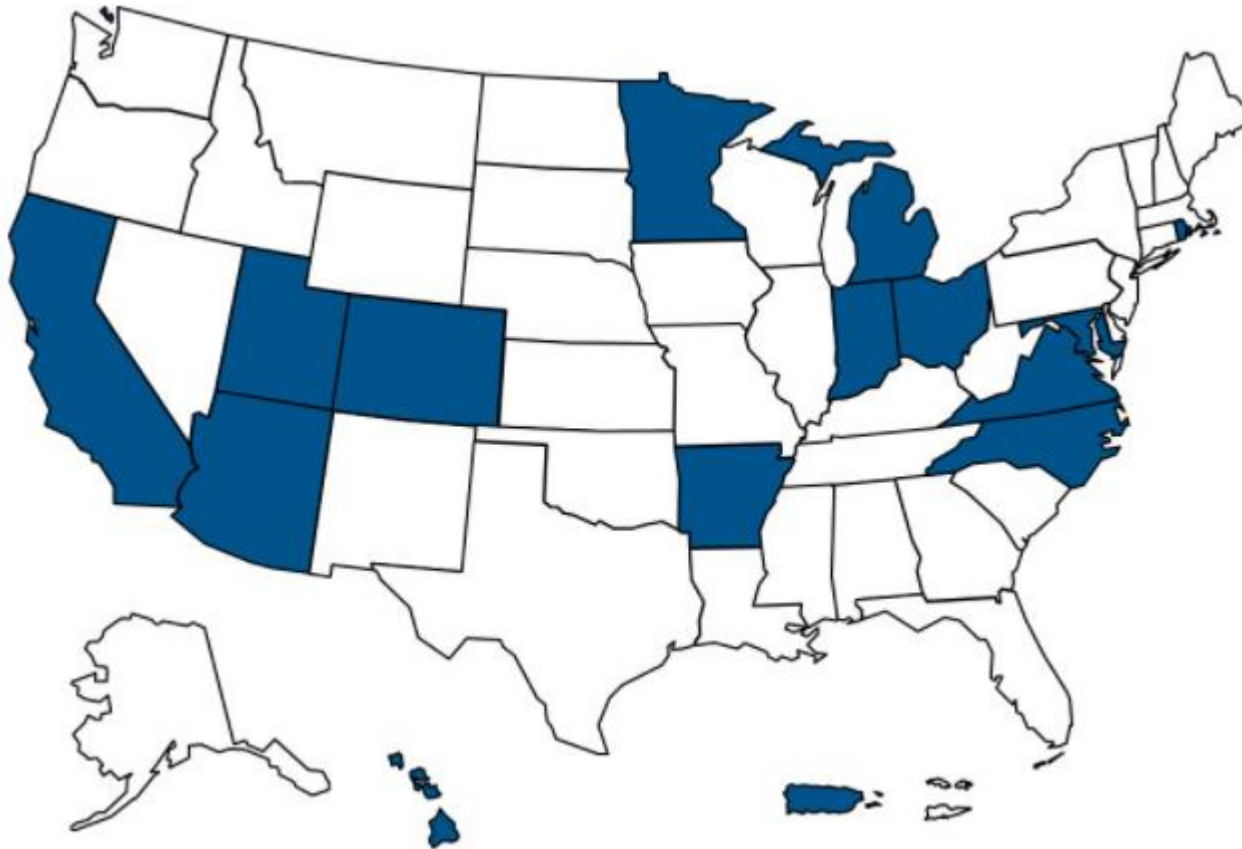


NARUC/NASEO Task Force on Comprehensive Electricity Planning

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

Participating States



In alphabetical order:

1. Arizona
2. Arkansas
3. California (co-vice-chair)
4. Colorado (co-chair)
5. Hawaii
6. Indiana
7. Maryland
8. Michigan
9. Minnesota
10. North Carolina
11. Ohio (co-vice-chair)
12. Puerto Rico
13. Rhode Island
14. Utah (co-chair)
15. Virginia

TASK FORCE LEADERSHIP

CO-CHAIRS

Chairman Jeffrey Ackermann,
Colorado Public Utilities Commission

Jennifer Richardson, Executive Director,
Indiana Office of Energy Development

CO-VICE CHAIRS

Commissioner Beth Trombold,
Public Utilities Commission of Ohio

Commissioner Andrew McAllister,
California Energy Commission

NORTH CAROLINA PARTICIPANTS

Commissioner Dan Clodfelter
North Carolina Utilities Commission

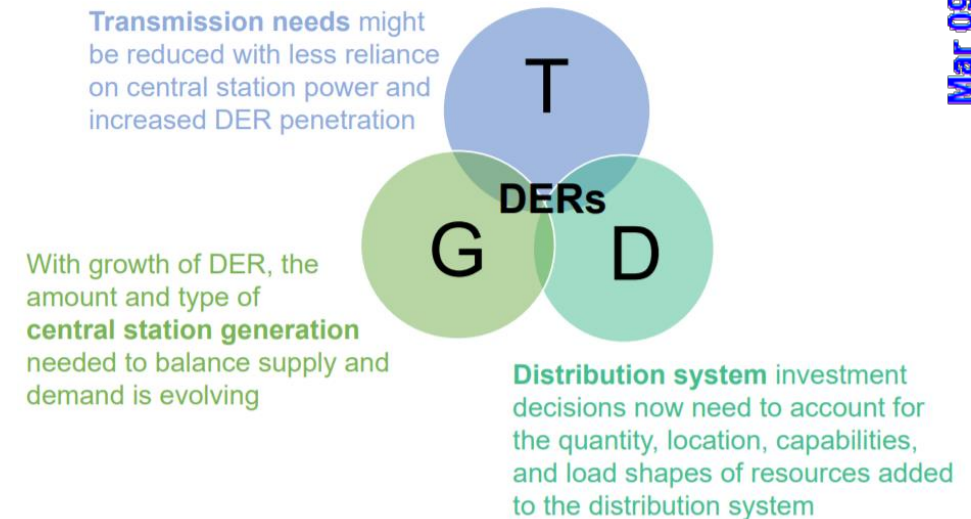
Sushma Masemore, Director
State Energy Office

Steve McDowell
North Carolina Utilities Commission

Chris Ayers, Executive Director
NCUC Public Staff

Electricity Planning for a 21st Century Power Grid

- Create a forum for the development of state-led pathways toward a more resilient, efficient, and affordable grid
- Foster greater alignment of resource and distribution system planning
- Outcomes for states and utilities
 - Improve grid reliability and resilience
 - Optimize use of distributed and existing energy resources
 - Avoid unnecessary costs to ratepayers
 - Support state policy priorities
 - Increase the transparency of grid-related investment decisions



Key questions

- **Core Issues**

- How does the status quo of resource / distribution system planning support or inhibit a reliable, least-cost power system?
- How do resource / distribution system planning need to relate to each other? What improvements can or should be made?
- What do the status quo and optimized planning processes look like under various permutations of market / policy structures
 - (e.g., vertically integrated vs restructured, existing distribution system planning process vs no existing process, existing resource preference policies vs no preference policies, integrated resource planning vs wholesale market)?
- What do Commissions want out of an optimized planning process? How will they know when it's been achieved?

- **Challenges and Needs**

- What steps are needed to transition from the status quo to optimized processes?
- What technical, administrative, and other barriers impede an optimized planning process? How can those barriers be addressed?
- What gaps in data, information, and tools need to be filled to support success?

TIMELINE:

FEBRUARY 2019:

NARUC and NASEO announce full roster of Task Force members

SPRING 2019:

Task Force hosts first in person meeting

FALL 2019:

Task Force hosts in person meeting with stakeholder representatives

SPRING 2020:

Task Force hosts in person meeting with stakeholder representatives

FALL 2020:

Task Force hosts in person meeting

FEBRUARY 2021:

Task Force publishes example approaches and state action plans

2 years | 4 workshops

Workshop 1

Identify key trends, articulate guiding principles, map status quo planning processes, begin identifying alignment needs

Workshop 2

Refine opportunities for planning process alignment with support from stakeholders and subject matter experts
“Process Maps”

Workshop 3

Consider what it takes to operationalize idealized aligned planning processes
“Roadmaps”

Workshop 4

Develop State Action Plans to build on the work of the Task Force

Five State Teams (“Cohorts”)

16 states | 5 cohorts

Vertically Integrated

Restructured

OFFICIAL COPY

Mar 09 2021

Coral

- Within organized markets

Tackling alignment of distribution, resource, and transmission planning

- *Pragmatic state; works collaboratively in region; operates in 2 RTOs*

Turquoise

- Outside organized markets

- *Anticipates range of energy policies; juggles urban vs. rural needs; long distances between load centers; transmission challenges*

Silver

Outside organized markets

Tackling alignment of distribution and resource planning

- *Coastal state vulnerable to weather-related natural disasters; experiencing flat to declining load*

Amber

Within organized markets

- *State is facing increasing weather-related damages and costs; new transmission and generation siting requests coming in*

Jade

- Within organized markets

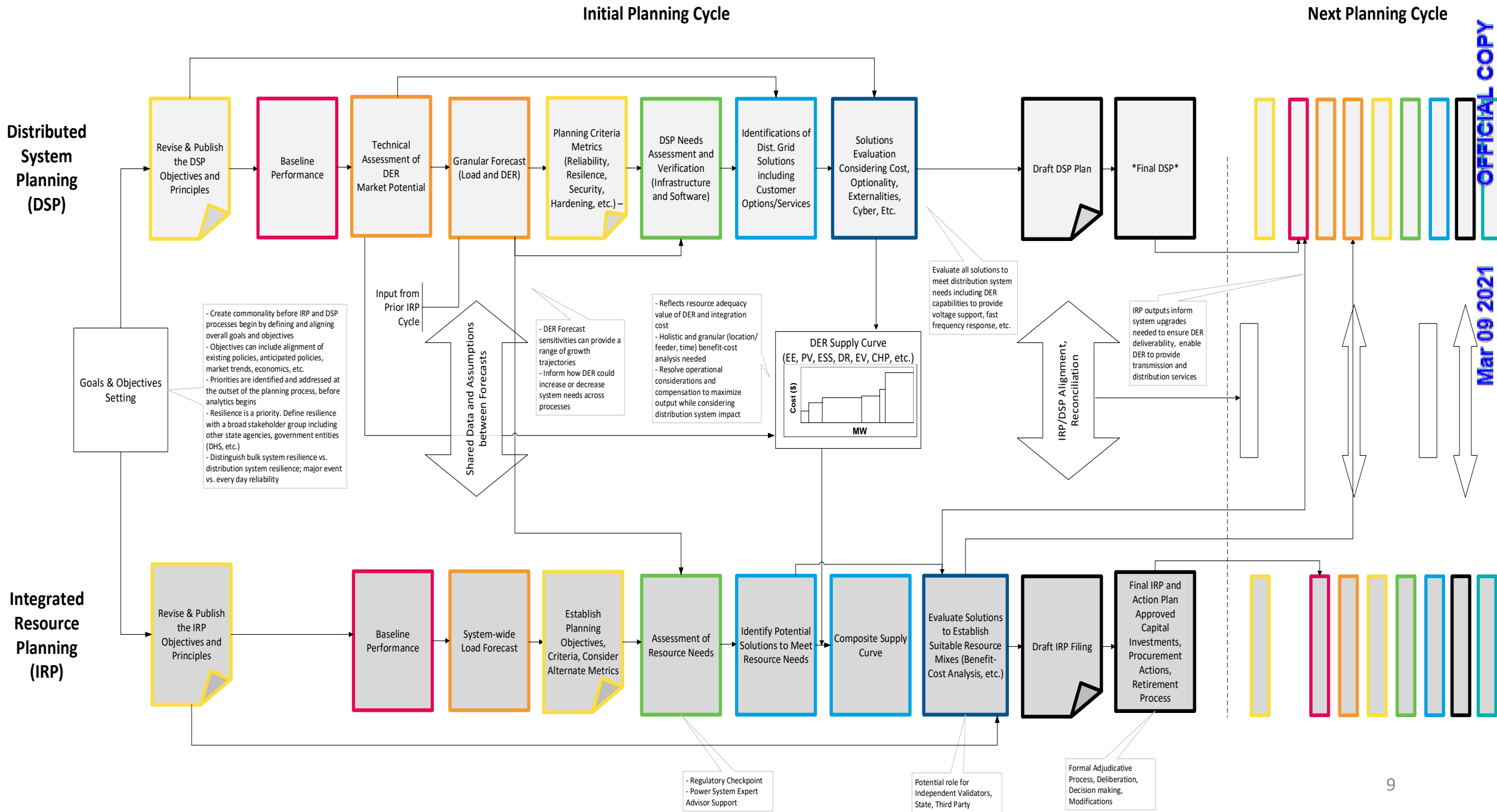
Focused on integrated distribution planning (combined with other state / utility energy planning and programs)

- *Retail competition in state; dynamic policy environment; impacted by cold-weather events*

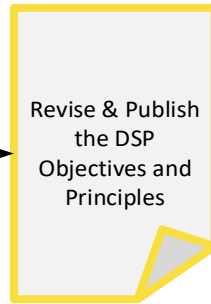
Silver Cohort Output

Guiding Principles

- Holistic planning that enables bidirectional evaluation of investment and resources to maximize system efficiency
- Balance system needs and other objectives while providing reliable service at least cost
- Open and transparent process where all stakeholders have access to information and opportunity to contribute to plan development
- Open access to distribution grid to maximize customer opportunity and value, support new products, technologies, and customer preference
- Flexibility to avoid displacing current or future technological development
- Resiliency to external events

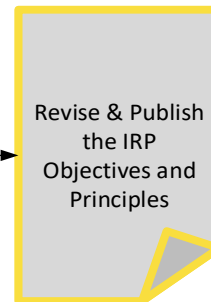


Distributed System Planning (DSP)

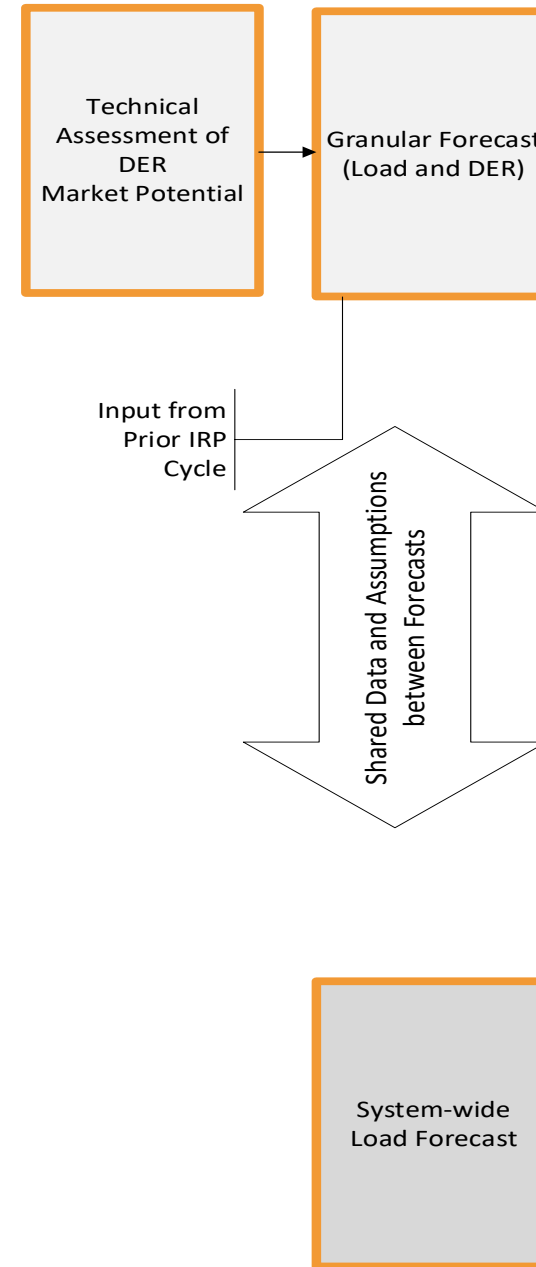


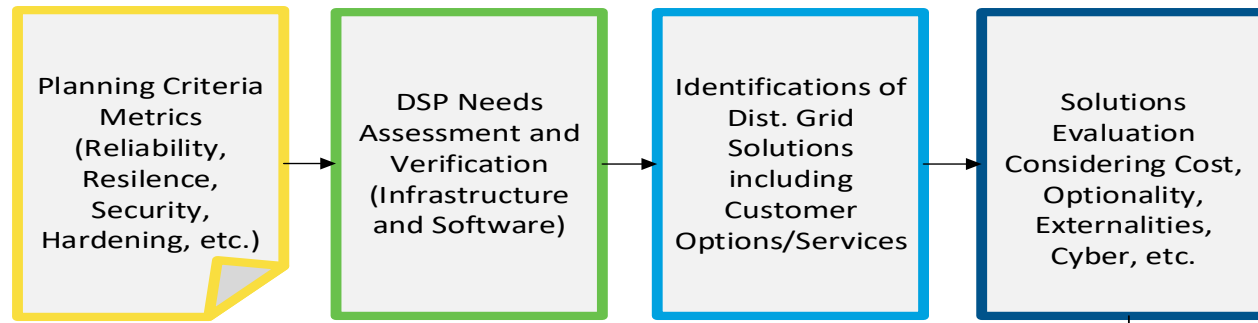
Goals & Objectives Setting

Integrated Resource Planning (IRP)

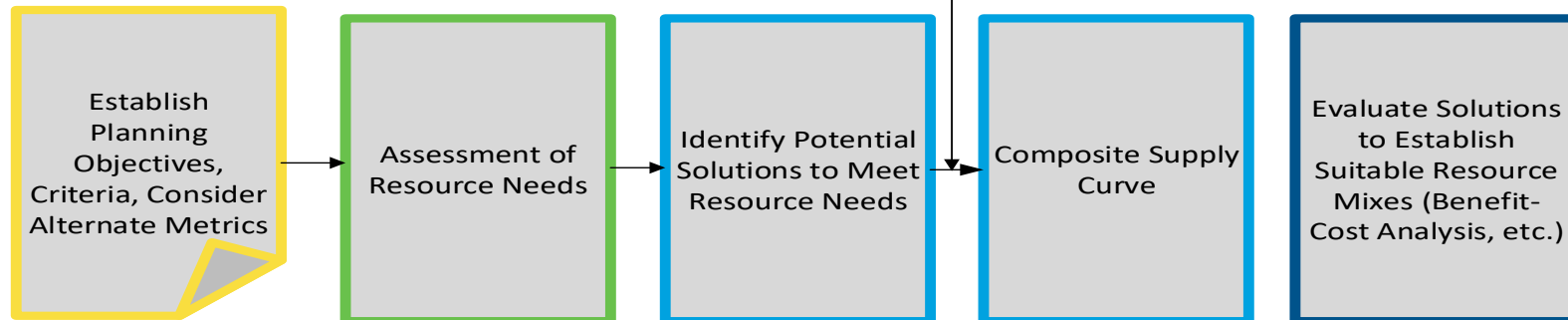
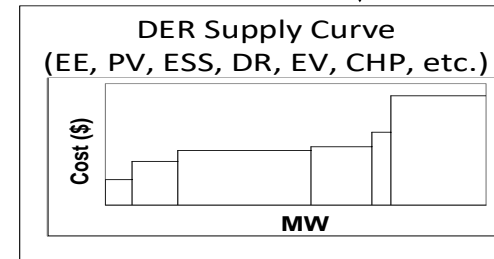


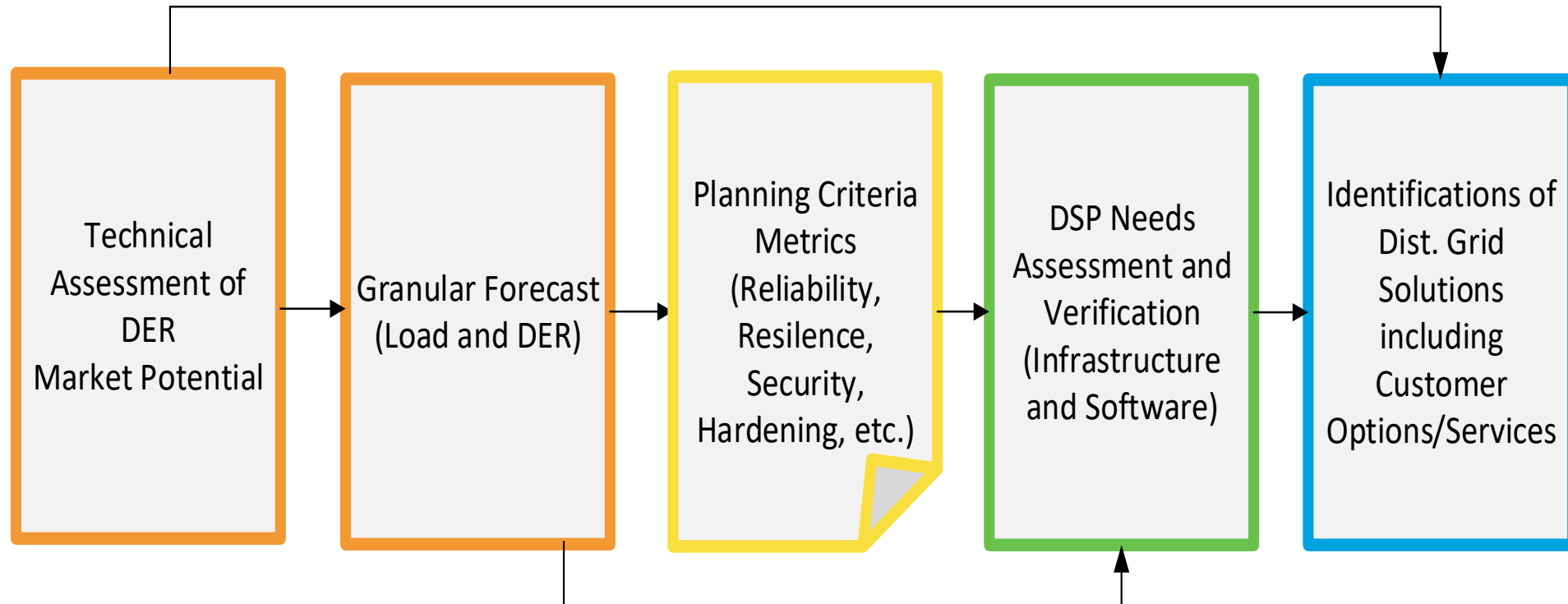
Common set of objectives reflecting a broad set of input and policies

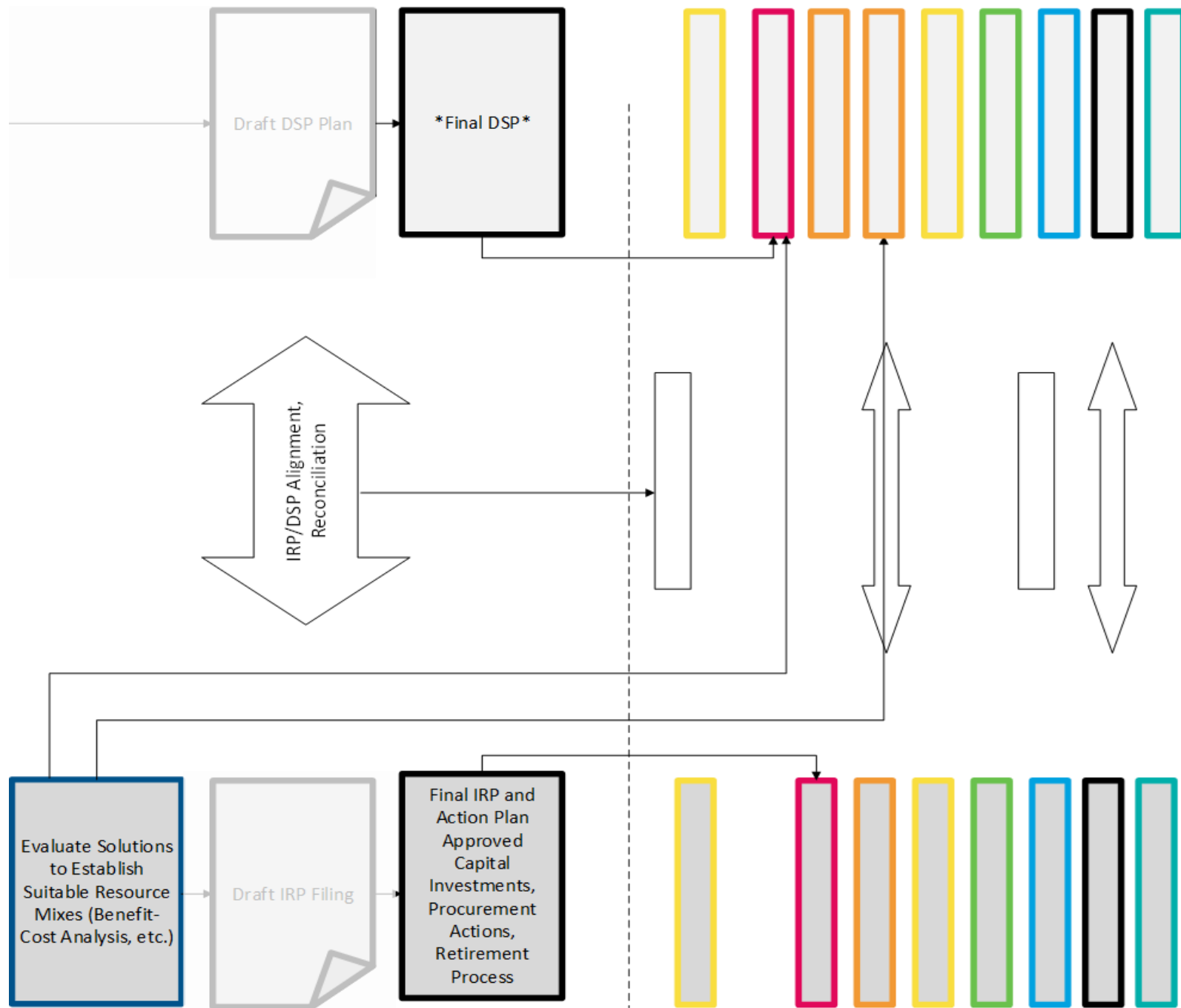




DER supply curve that enables a holistic consideration of all resources in the IRP







Inter-cycle linkages
to enable feedback
loops without
stalling the process

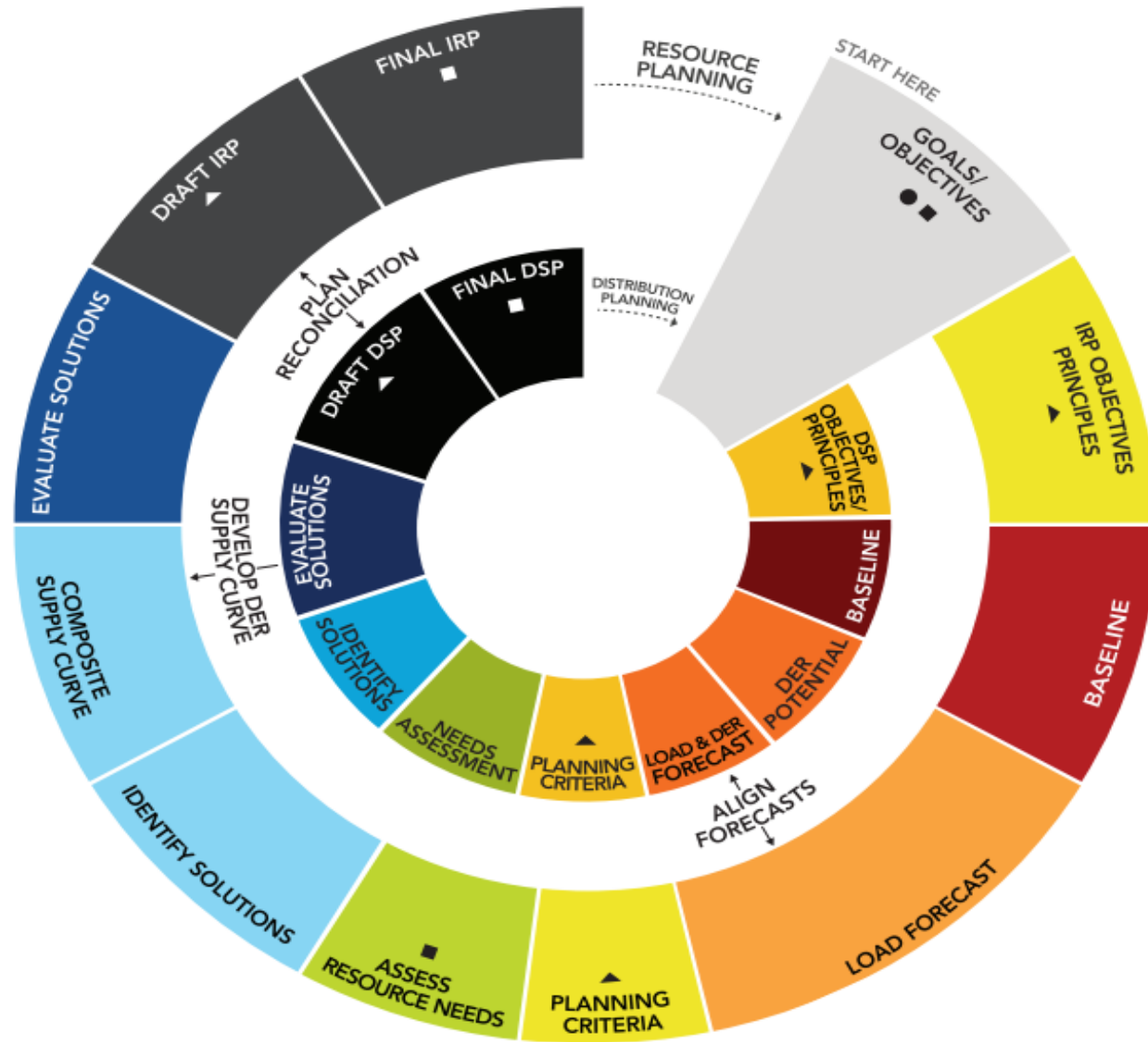
Information
exchange that
enables consistent
forecasts across
planning processes

The circular diagram is a representation of the Silver cohort's vision for aligned electricity planning, highlighting the vision and emphasizing the touchpoints and opportunities for greater alignment of electricity planning processes. The diagram serves two purposes: it is the executive summary of the cohort's roadmap and is designed in a way to facilitate comparisons with other cohorts' visions.

To structure their roadmap, the cohort relied on eight foundational categories of planning, indicated by the color of each step. The sequence of the categories in this diagram is specific to the Silver cohort vision for aligned planning.

Planning Categories

- Describe the Future Trajectory
- Establish Planning Assumptions
- Develop Forecasts
- Identify System Needs
- Identify Solutions to Address Needs
- Evaluate and Apply Criteria to Determine Preferred Solutions
- Finalize Solutions, Approve and Publish Plan
- ▽ Integrated Process Steps
- State Policy Inputs to Planning
- State Regulatory Role in Planning
- ▲ Stakeholder Engagement



Thank You

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