

HANDOUT 1

SOUTHWEST POWER POOL



*Working together to responsibly and economically
keep the lights on today and in the future.*



SouthwestPowerPool



SPPorg



southwest-power-pool

INTRODUCTION

SPP IS A REGIONAL TRANSMISSION ORGANIZATION (RTO)

Southwest Power Pool

501(c)(6) nonprofit corporation

One of 9 regional grid operators

130 member companies in 14 states

“Air traffic control” for high-voltage grid

Balance supply and demand across region

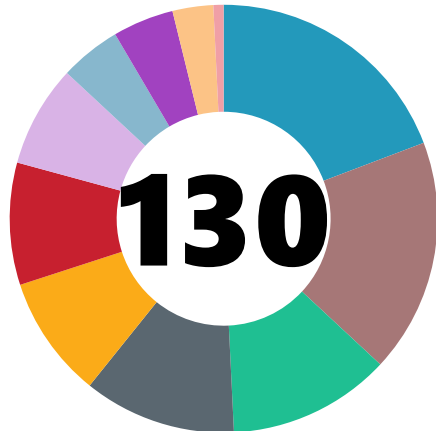
Maintain reliable grid operations

Operate wholesale energy market

Plan future transmission needs

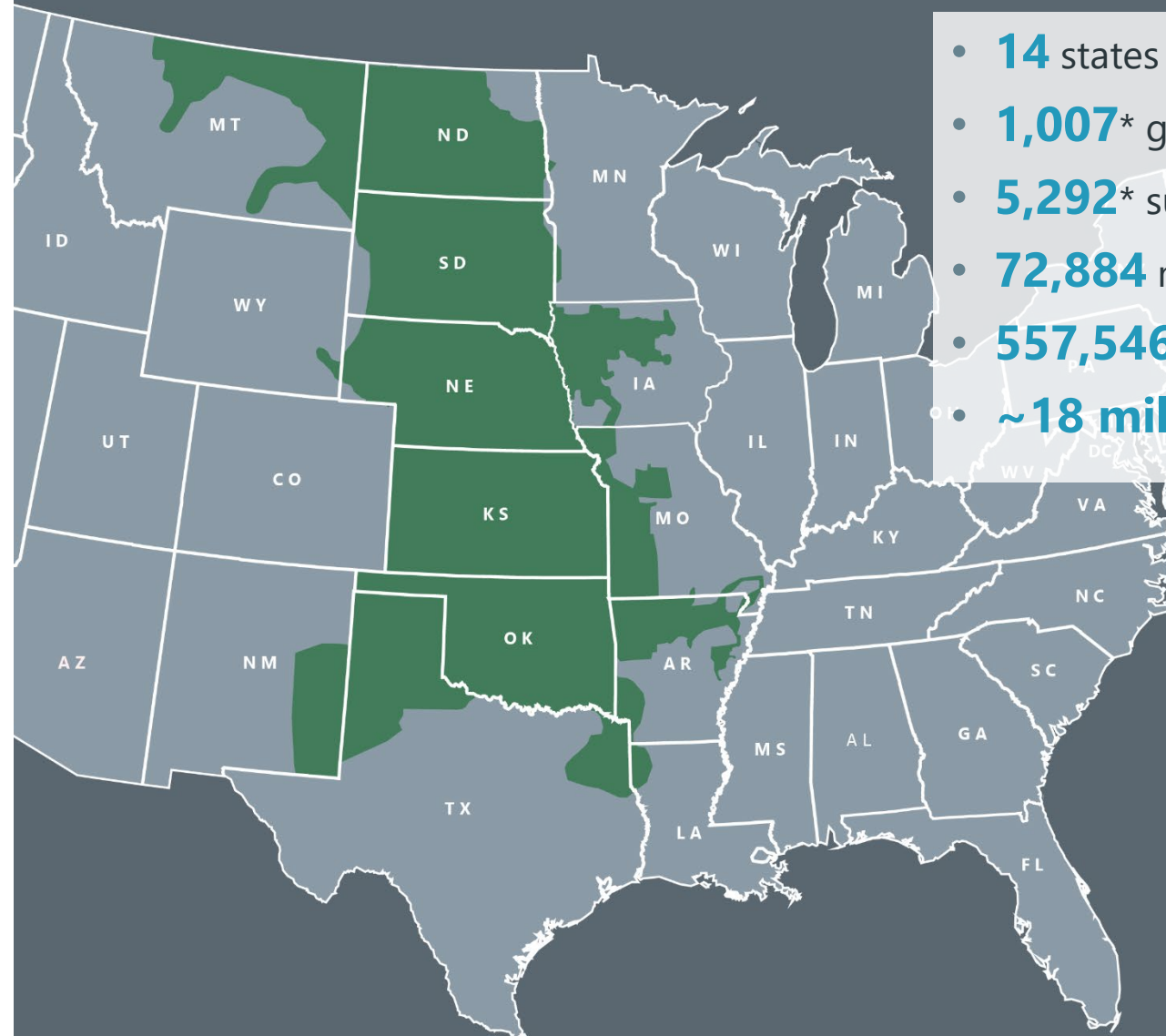


SPP RTO OPERATING REGION



Members

- 25 Generation and Transmission Cooperatives
- 23 Independent Power Producers
- 16 Investor-Owned Utilities
- 15 Independent Transmission Companies
- 12 Municipal Systems
- 12 Large Retail Customers
- 10 Power Marketers
- 6 Public Interest Entities
- 6 State Agencies
- 4 Alternative Power
- 1 Federal Agency



- **14** states
- **1,007*** generating plants
- **5,292*** substations
- **72,884** miles of transmission
- **557,546** sq. mi. service territory
- **~18 million** population served

A black and white photograph of an industrial facility, likely an aluminum plant. In the foreground, a worker wearing a hard hat, safety glasses, and overalls stands with one arm raised, gesturing towards the background. The background features large industrial structures, including a tall, dark, cylindrical object and various pipes and scaffolding. A bright light source is visible on the left side of the frame.

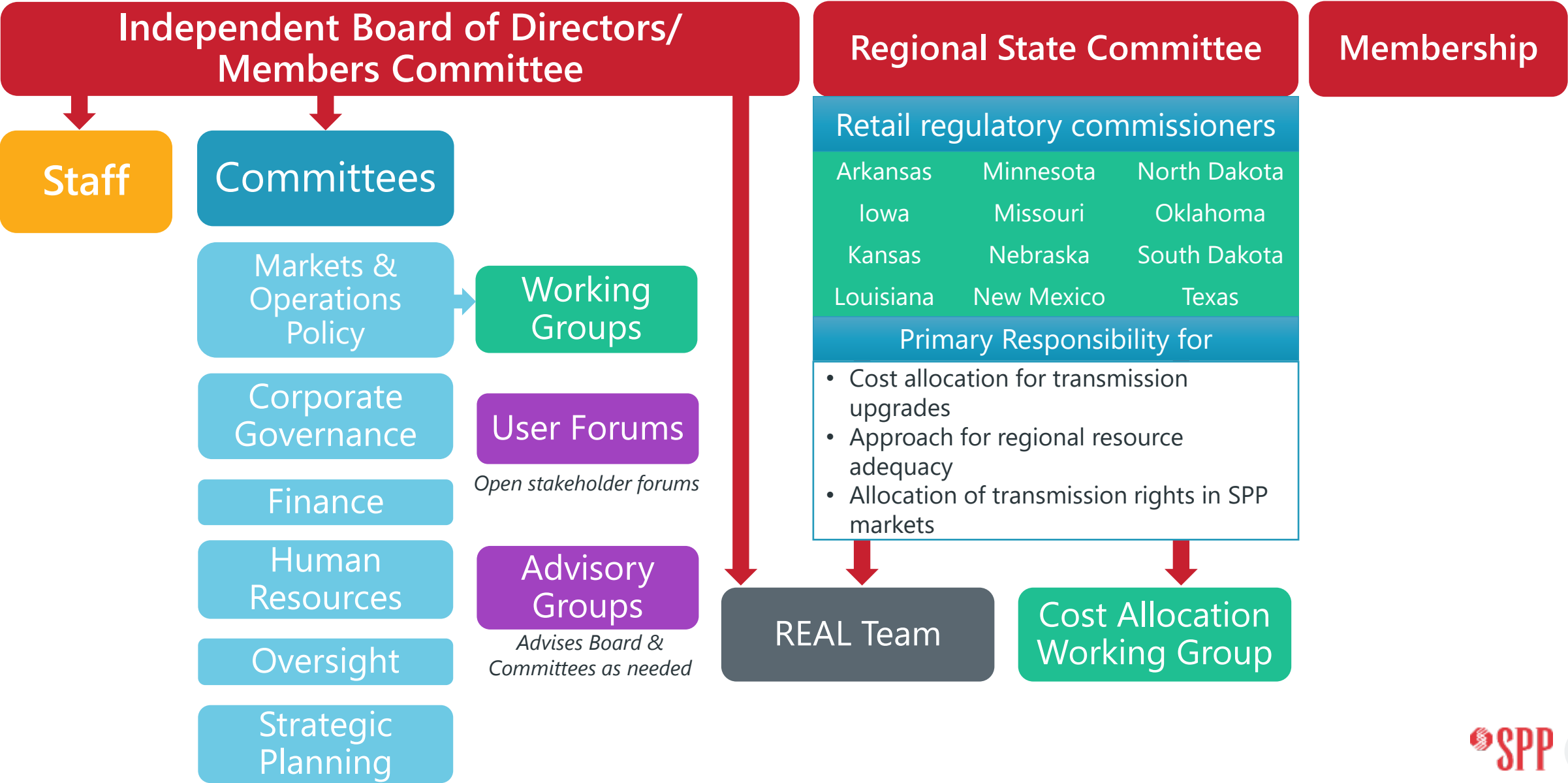
OUR BEGINNING

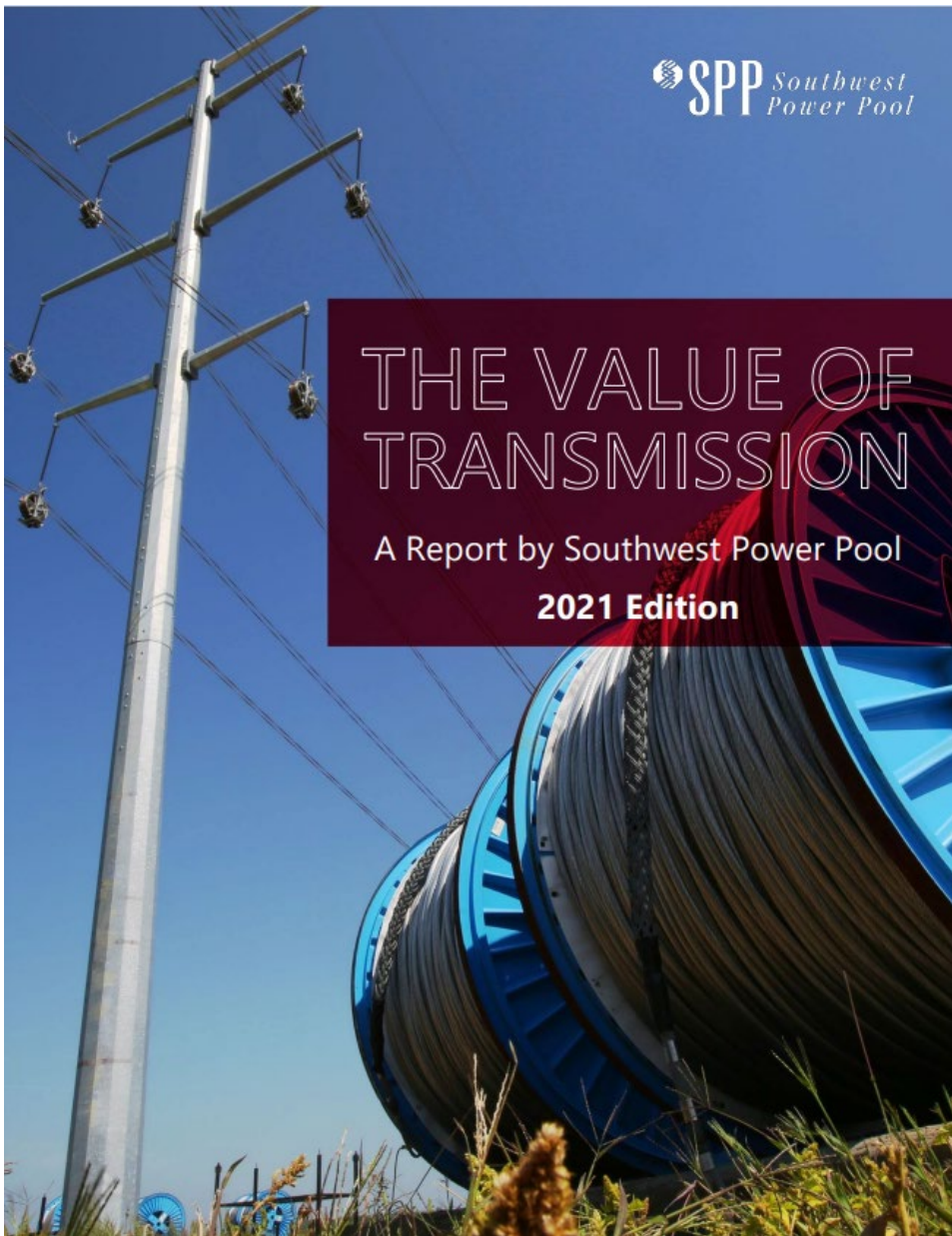
- In 1941, 11 member utilities pooled electricity to power aluminum plant at Jones Mill for critical defense
- Maintained after WWII to continue benefits of regional coordination



500+ stakeholders drive
decisions & strategic
direction

COLLABORATIVE STAKEHOLDER PROCESS



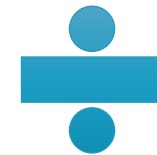


VALUE OF TRANSMISSION REPORT

- SPP is mandated by FERC to ensure reliability transmission infrastructure
- Reliability is the primary objective, however...
- Strategic expansion can create net benefits
- Study seeks to quantify *some* of those benefits
- Assesses Net Present Value (NPV) of SPP's projects

\$3.35 billion
investment cost of
transmission installed
2015-2019

\$27.2 billion
40-year net present
value of quantified
benefits



\$5.19 billion
40-year net present
value of annual
transmission revenue
requirement cost

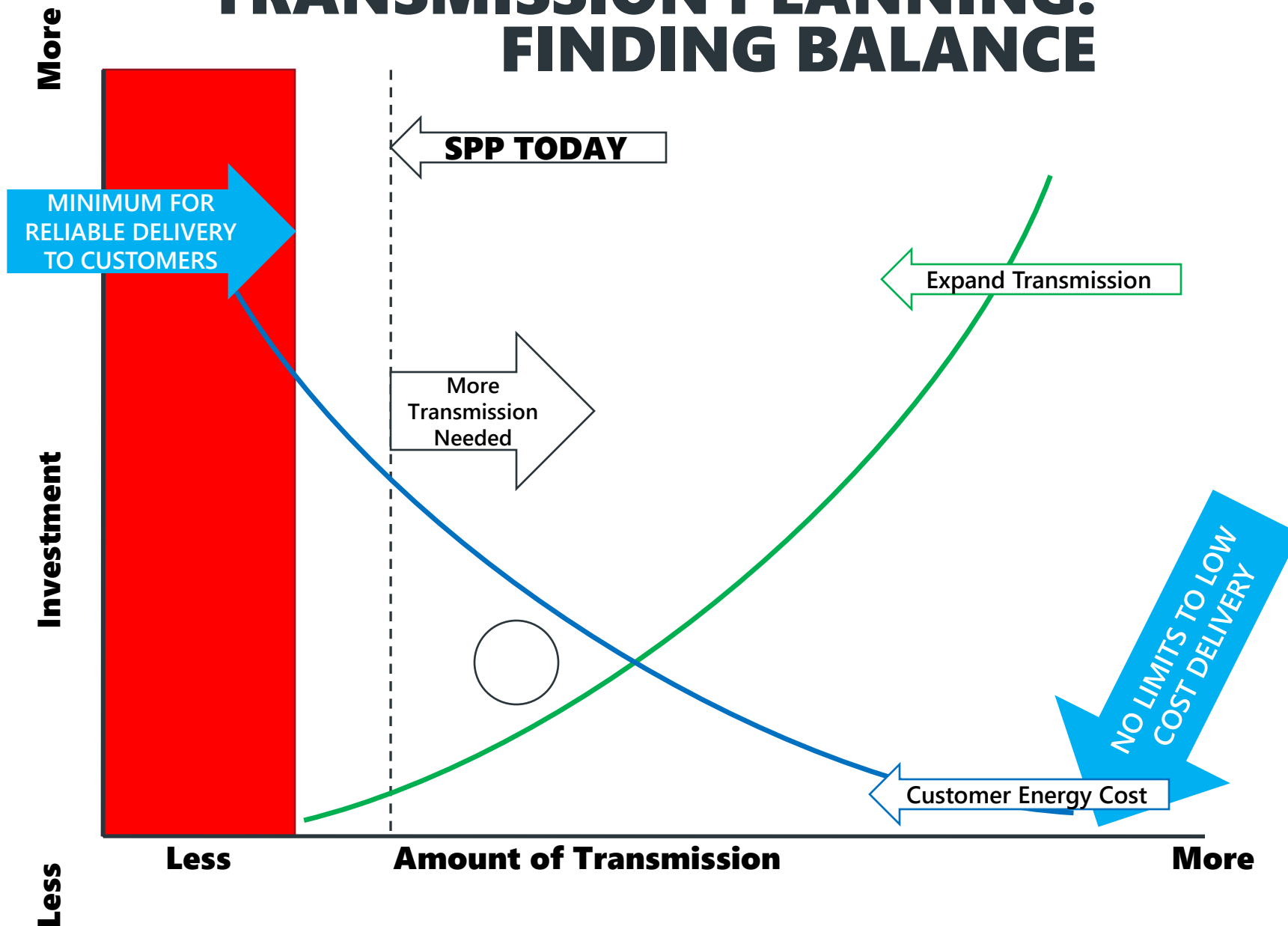


5.24 : 1

Benefit-to-cost ratio

REGIONAL PLANNING

TRANSMISSION PLANNING: FINDING BALANCE



CHALLENGES

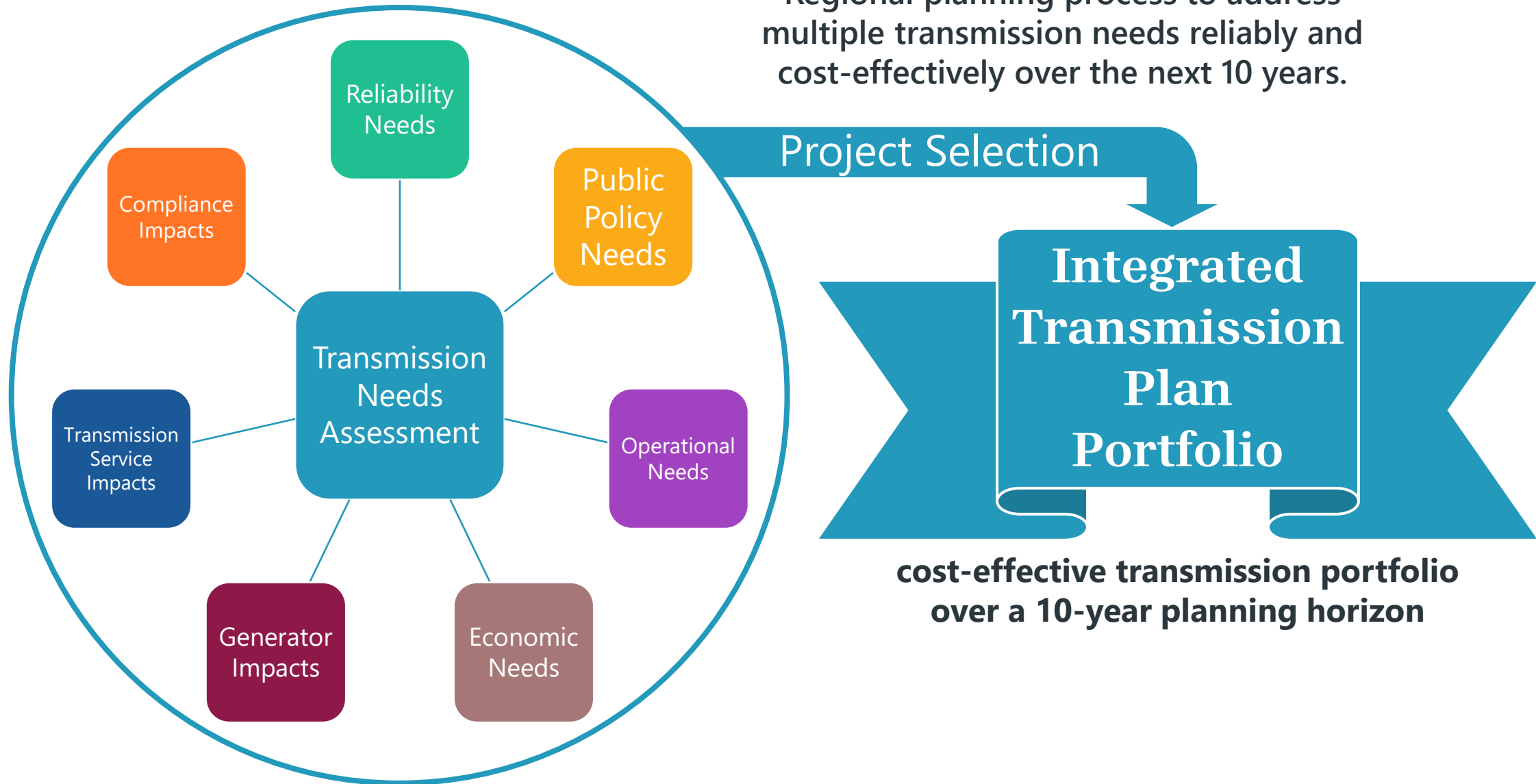
- Generators often remote from population centers
- Siting & “not in my backyard” concerns
- Long and costly process
- Deciding who will pay
- Environmental constraints

KEY CONSIDERATIONS

- Reliability
- Economics
- Public Policy

HOW SPP PLANS NEW TRANSMISSION

Regional planning process to address multiple transmission needs reliably and cost-effectively over the next 10 years.



Building new transmission
can take from 3 to 9 years

TRANSMISSION BUILD CYCLE

Southwest Power Pool

Planning Study (12 months)

Transmission Owner Selection (3-12 months)

Responsible Party

→ SPP

→ Transmission Owner

Transmission Owner

Siting, Design, Right of Way Acquisition, & Construction (2-6 yr.)

3 ¼ yr.

8 ½ yr.



TRANSMISSION OWNER SELECTION: FERC ORDER 1000

SPP developed the Transmission Owner Selection Process (TOSP) to allow **competitive bidding** on certain transmission projects as required by FERC

Transmission facilities that meet criteria in the SPP tariff and are approved for construction (or are endorsed by the SPP board of directors) are known as ***competitive upgrades***

SPP solicits proposals for **competitive upgrades** from qualified Request For Proposal participants utilizing the TOSP

TAKEAWAYS

Transmission planning is complex

- Involves multiple stakeholders with different interests
- Reliability is number 1 priority
- Reducing energy cost by enabling access to the cheapest resources
- Maintaining affordability for end users
- Enabling economic development
- Leverage new technology

SPP's role: facilitate coordination of the various goals & interests

- Independent board of directors
- Rigorous study process
- Involvement of all stakeholders, including state regulators
- Competitive process for large projects



THANK YOU!

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