



# Utility actions to prepare for impacts of the IRA

ICF

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## Utility actions to prepare for impacts of the IRA

- Blend IRA and BIL strategies
- Rescope your planning playbook
- Accelerate actions
- Communicate and influence
- Embrace change

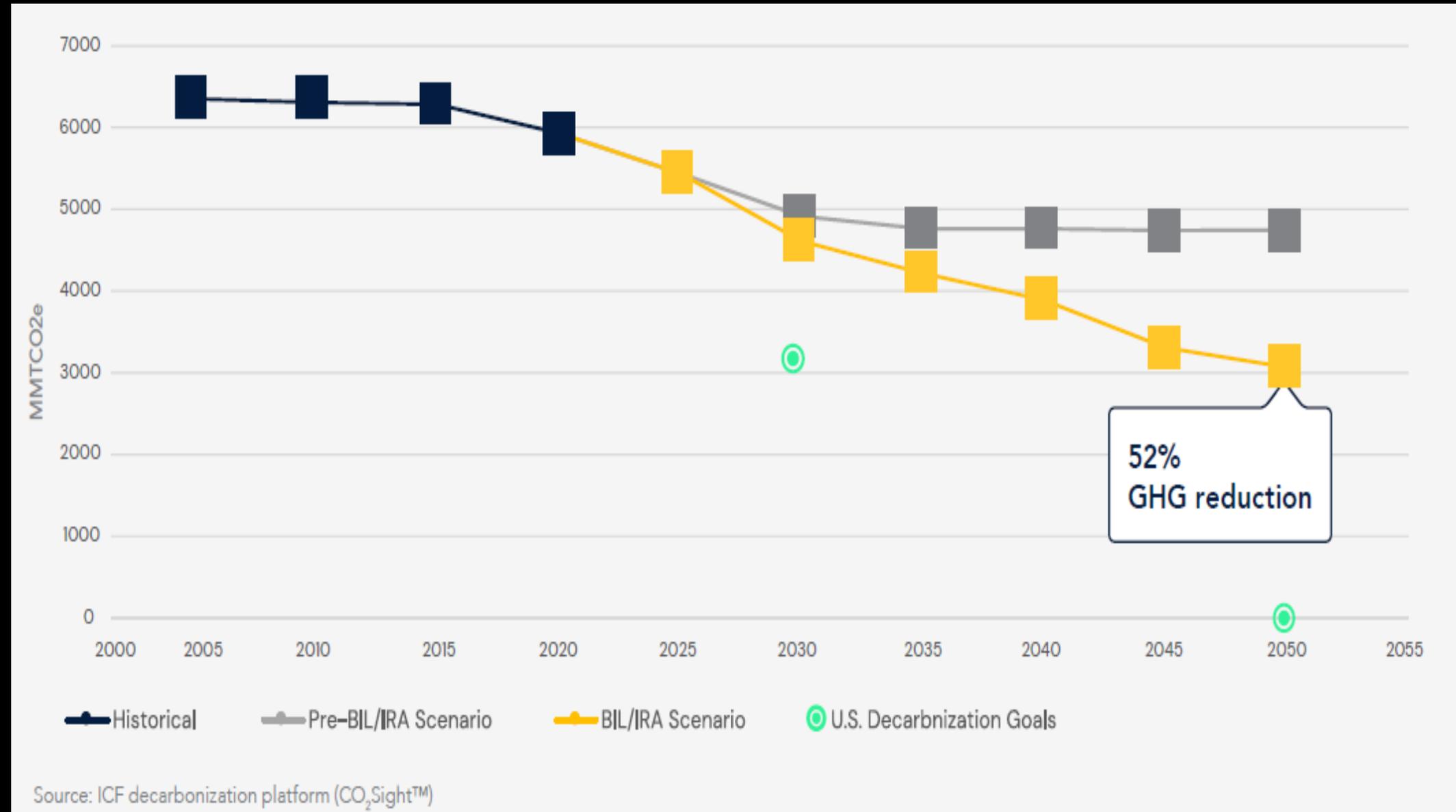
# BIL/IRA projected to double GHG reductions

## *BIL (\$ billion)*

- \$90+ Transit
- \$70+ T&D
- \$9.5 H2
- \$15 EV

## *IRA (\$ billion)*

- +\$400 clean energy
- \$19.5 agriculture





# → Blend BIL / IRA Strategies



## Resiliency

- Consumers \$100M
- Holy Cross Energy \$100M
- PacifiCorp \$100M
- PECO \$100M
- Xcel \$100M

## Smart Grid

- Allete \$50M
- OG&E \$50M
- PGE \$50M
- SMUD \$50M
- PPL \$50M

## Innovation

- Alaska Energy Authority \$207M
- Georgia Environmental Finance Authority \$250M

# Rescope your planning playbook

Reliability, safety,  
resource adequacy,  
security, etc

Resilience,  
clean energy,  
storage,  
flexibility, etc.

Equity,  
environmental  
justice,  
electrification,  
T/D/G co-  
optimization, etc

**Traditional planning  
requirements**

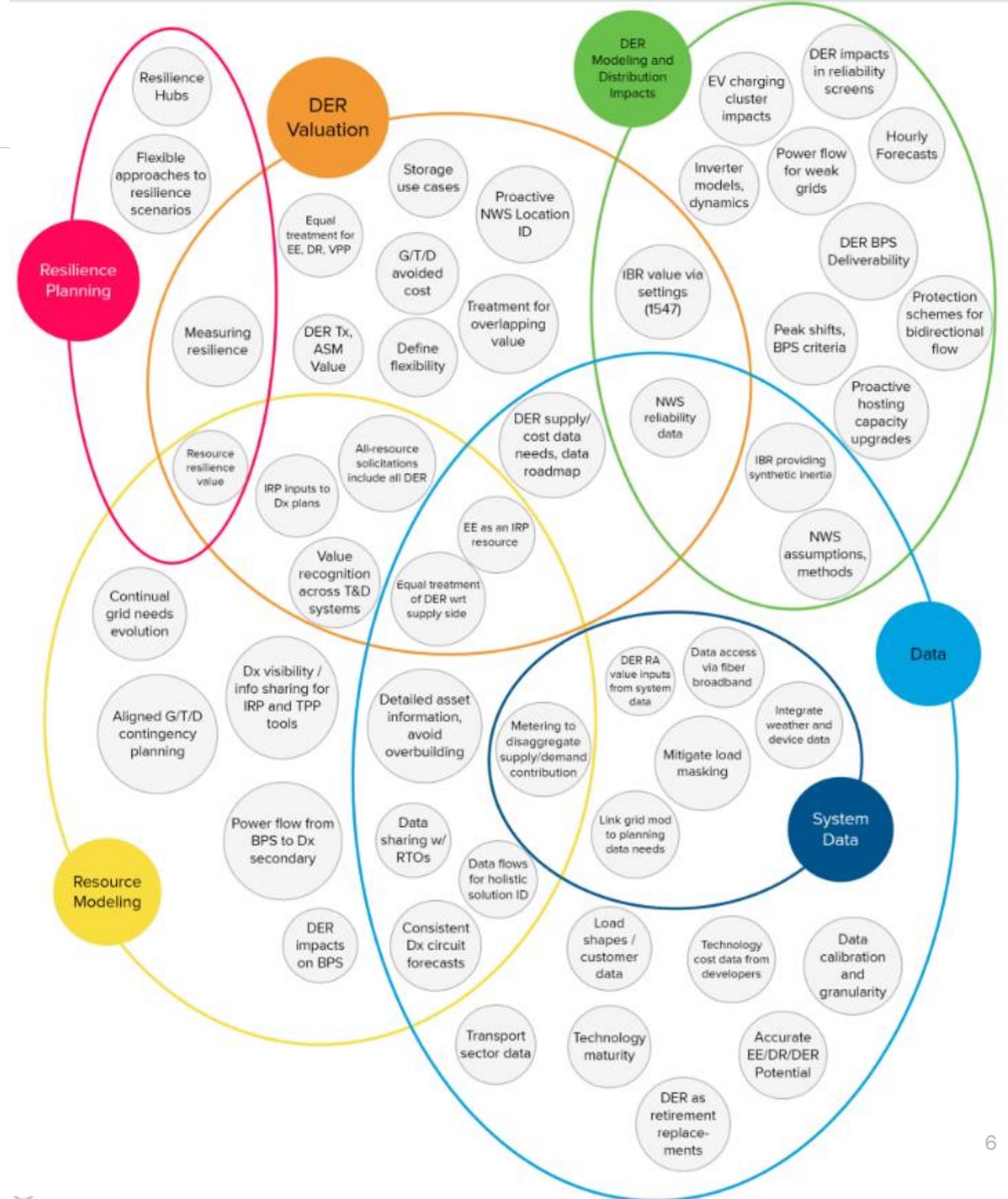
**New planning  
requirements**

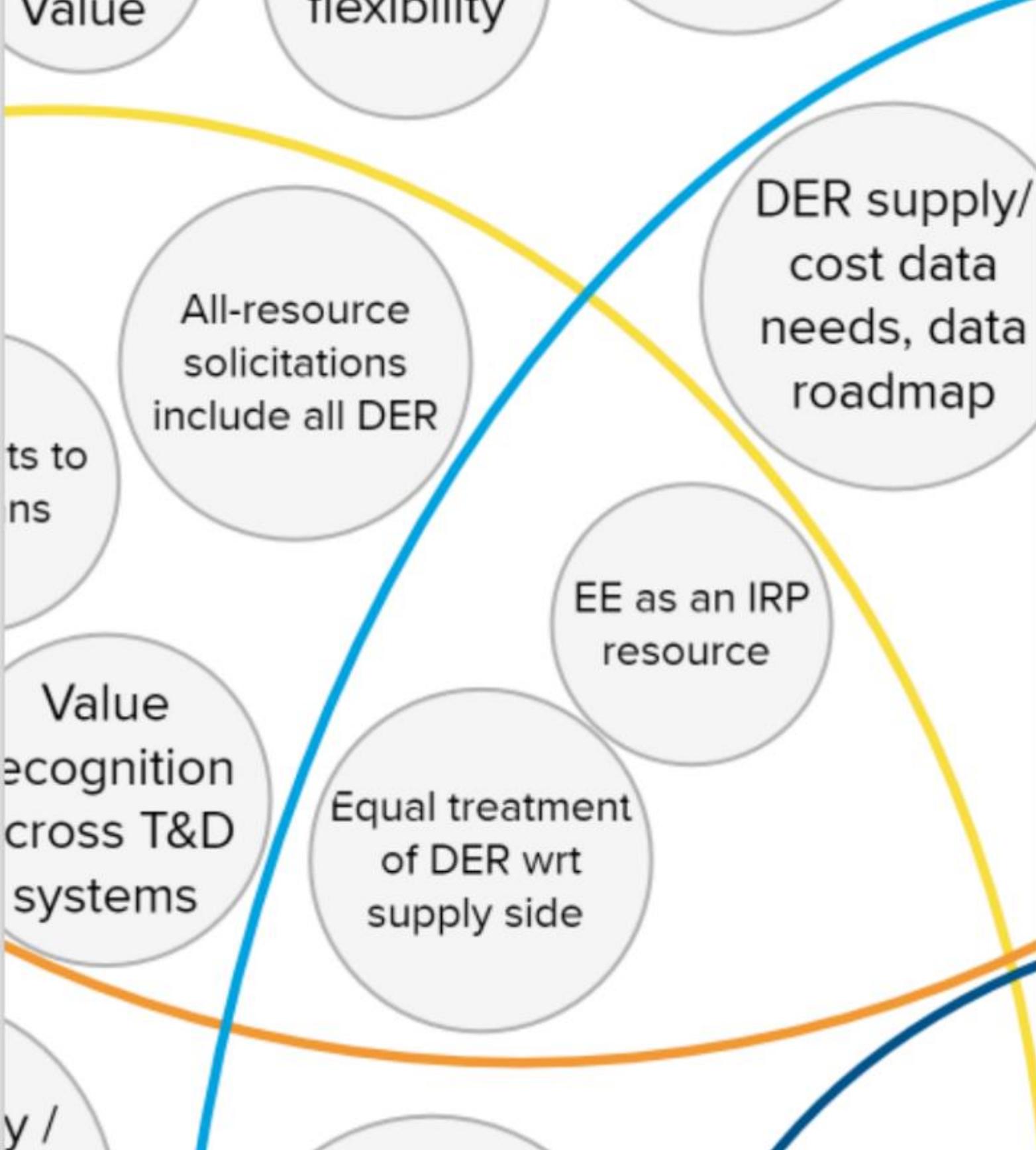
**Emerging planning  
requirements**

# Improve information flows

*“What data, modeling, tools, or research could help fill gaps between the vision and what’s currently feasible?”*

*If a Genie gave you three wishes to spend on improving planning processes, what would you wish for?”*





*Models need to advance to enable evaluation of DER aggregation with supply side resources*

*[We] need new modeling approaches to evaluate DER in the same way they evaluate supply central station generation*

*...not just feeding the IRP process from DSP, but also providing input to the DSP*

*Building a DER supply curve to enable that interface requires an understanding of the data needed to do that analysis and a data roadmap*

*Treatment DER in an apples-to-apples in a way that's similar to supply-side resources in IRP requires granular resource information about quantity/cost of resources available*

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EV charging  
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impacts

DER impacts  
in reliability  
screens

Inverter  
models,  
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Power flow  
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grids

How  
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DER BPS  
Deliverability

BR value via  
settings  
(1547)

Peak shifts

*Representation of inverter-based resources in system dynamics modelling is important, inverter models will inform planning criteria*

*Data quality: need to capture actual inverter data sheet vs "typical", reflect software updates that impact characteristics, harmonics*

*Impact of high penetrations of DER on bulk system reliability not-fully-understood/studied, hampers planning.*

*Managing high penetrations of inverter-based resources under weak grid conditions will require new approaches to power flow modeling*

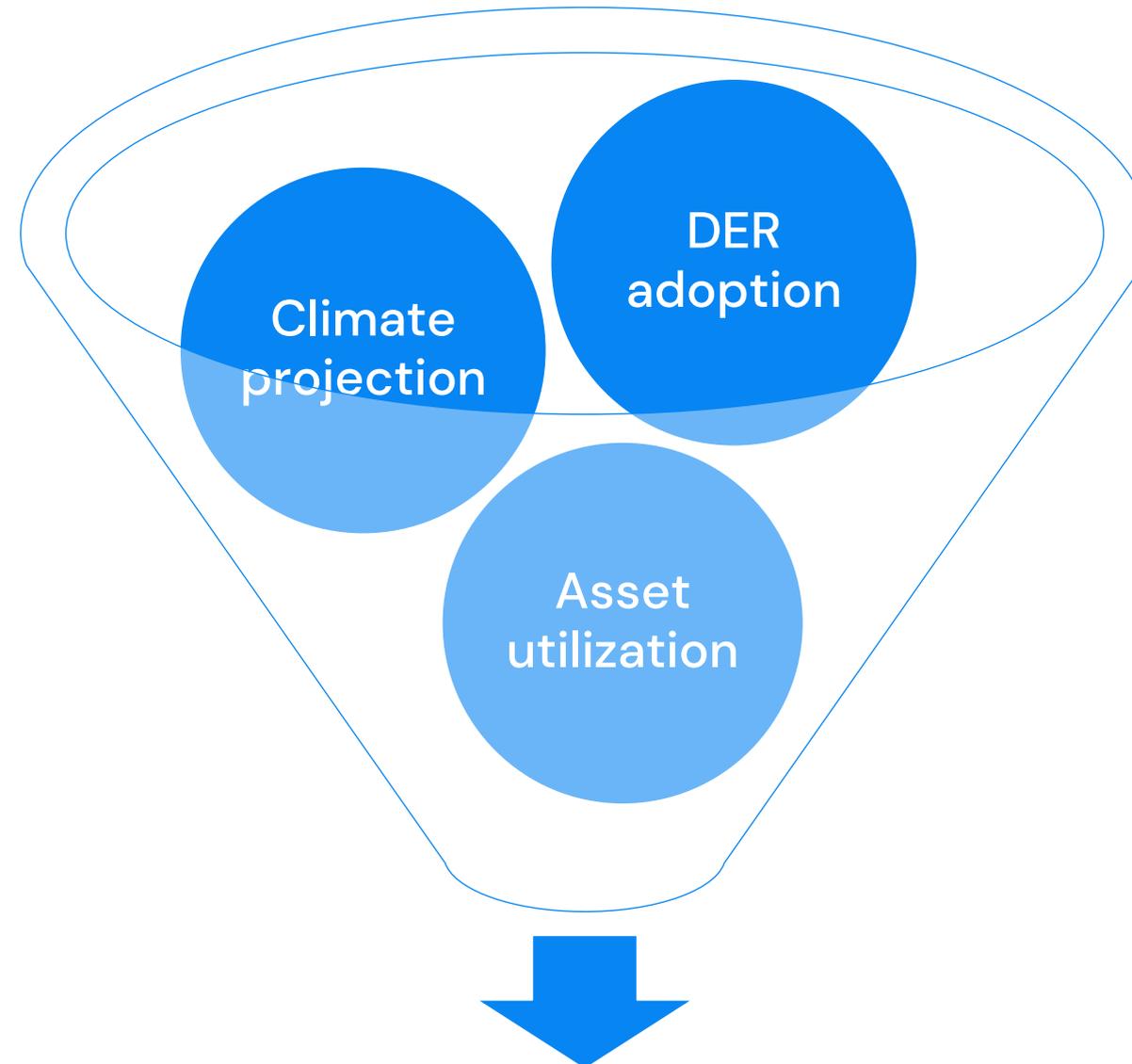
# Comprehensive planning in action!

## Assets:

- Climate informed asset management
- Climate informed risk assessment
- Operational awareness to maximize asset utilization

## Customers:

- Affordability through right-sized infrastructure
- Affordability through efficient use of grid capacity
- Resilience through strategic DER and storage deployment



**Right-sized Infrastructure =  
Best use at the lowest cost**

## Investment:

- Enhance distribution system awareness
- Proactive capacity upgrades/load management
- Update technology standards and physical limits

## Processes:

- Advanced load forecasting (climate projections and technology adoption)
- Balance supply/demand 8760 with variable and energy limited resources
- Cross-system (T&D) planning to accommodate two-way power flow



# → Accelerate actions



The time to modernize is now.

Prioritize.

Sequence.

Reset.



# Communicate, educate, inform, influence

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## *Customers*

- Create customer friendly content
- Inform customers of incentives and benefits available
- Create a frictionless customer journey
- Use communications to build customer and contractor relationships
- Be proactive

## *Regulators and Energy Offices*

- Partner with energy offices to maximize federal opportunities
- Influence program decisions
- Maximize outreach opportunities



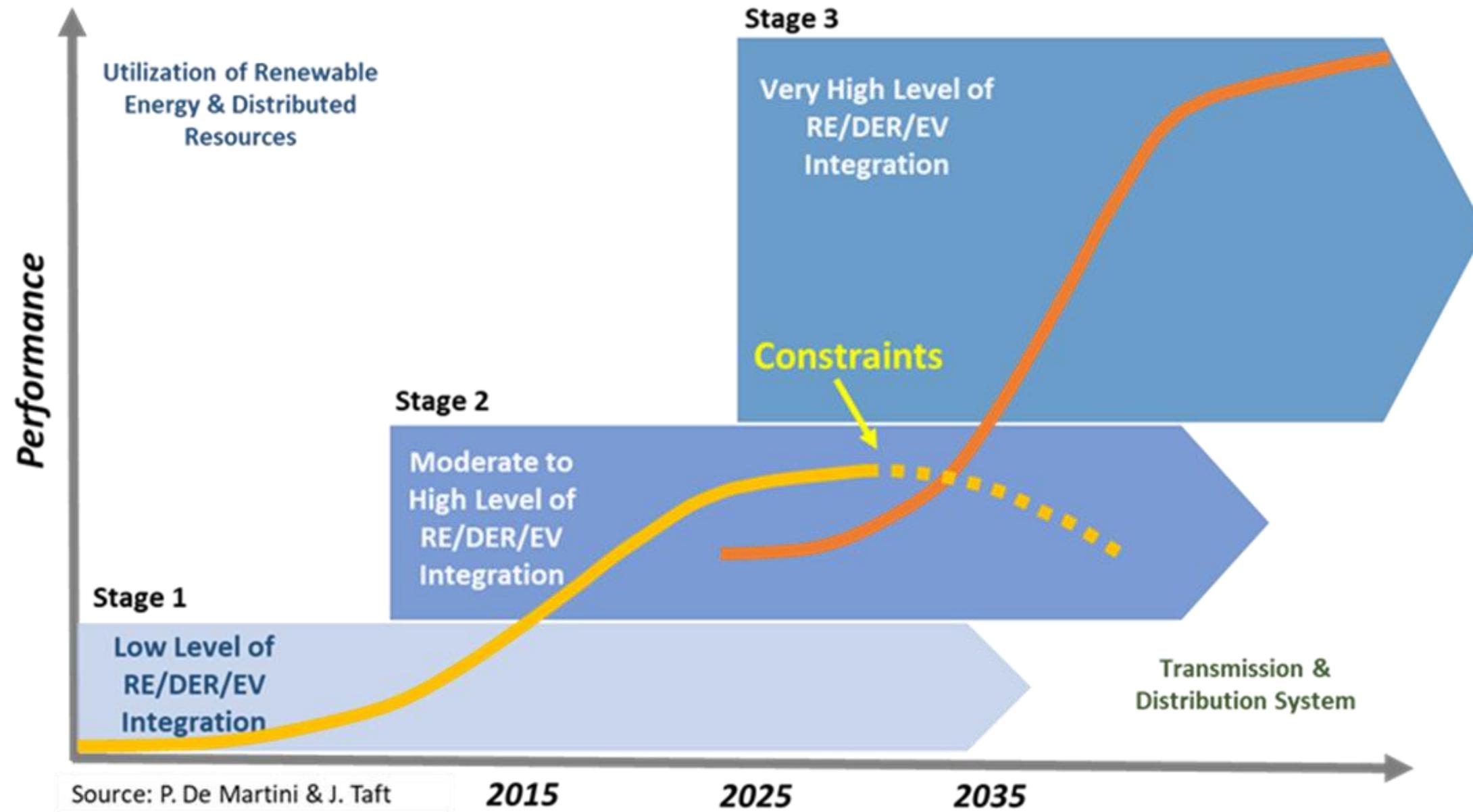
## → Embrace change

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Embracing change does not mean sacrificing reliability, safety, security or affordability...its about improving adaptability.

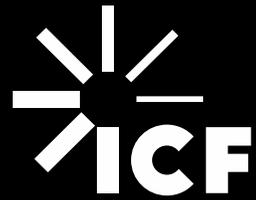
# Adapt to different futures and advancing technology



Get in touch with us:

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