

Training on Integrated Resource Planning for South Carolina Office of Regulatory Staff

Purpose and Application of IRPs

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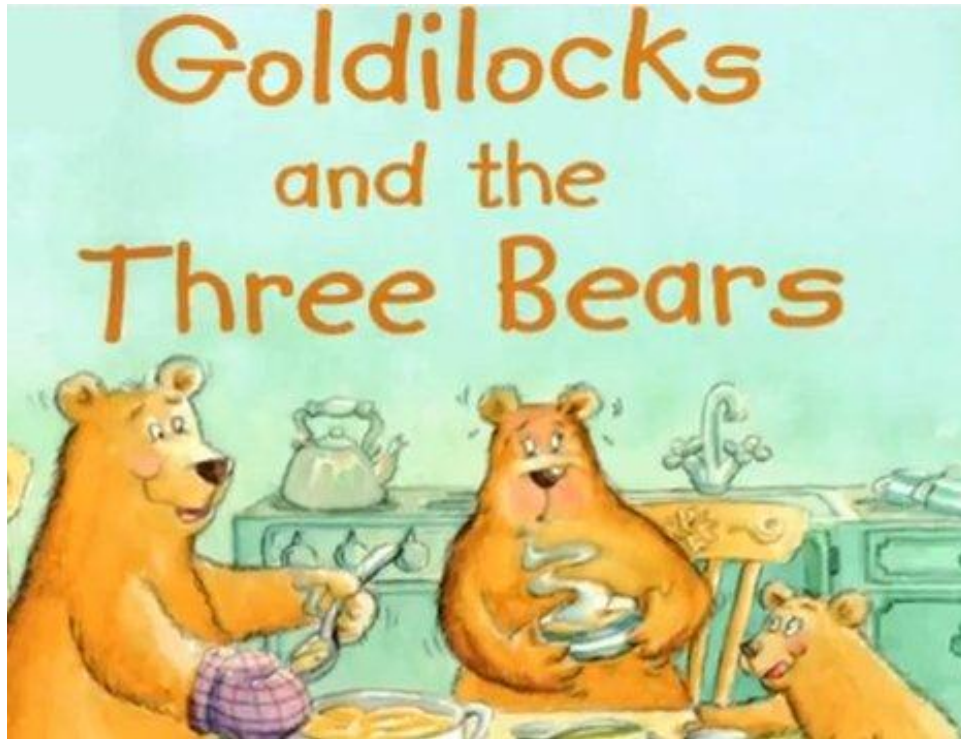
What's An Integrated Resource Plan

- What purpose does it serve?
- What questions does it address?
- How is it used?

Purpose Integrated Resource Plans

- ▣ ***Integrated*** Resource Planning (IRP) is intended to evaluate multiple resource portfolio options in an organized, holistic, and technology-neutral manner and normalize solution evaluation across generation, distribution, and transmission systems and demand side resources
 - This allows for consideration of relative cost and risk across the broadest array of potential solutions
- ▣ When done properly, the IRP development process and the results of that process
 - Provide data and analysis that inform utility and regulator decision-making and stakeholder actions
 - Provides a structure and an opportunity for a utility, its regulators and stakeholders to learn and to develop plans in a transparent and co-operative atmosphere

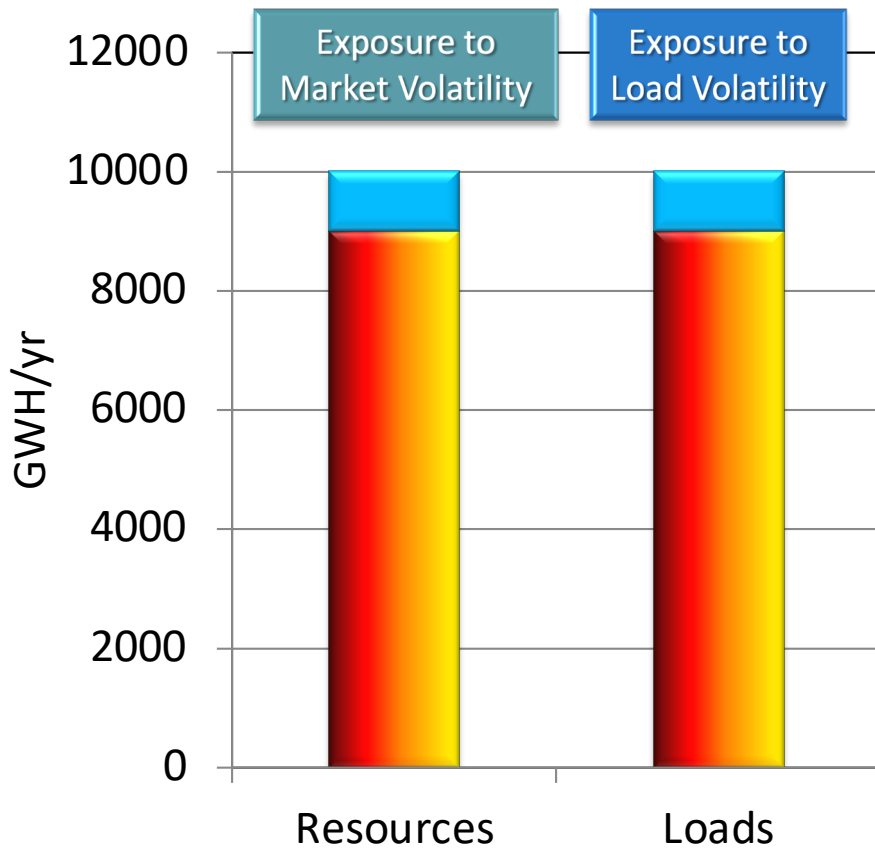
The Resource Planner's Problem



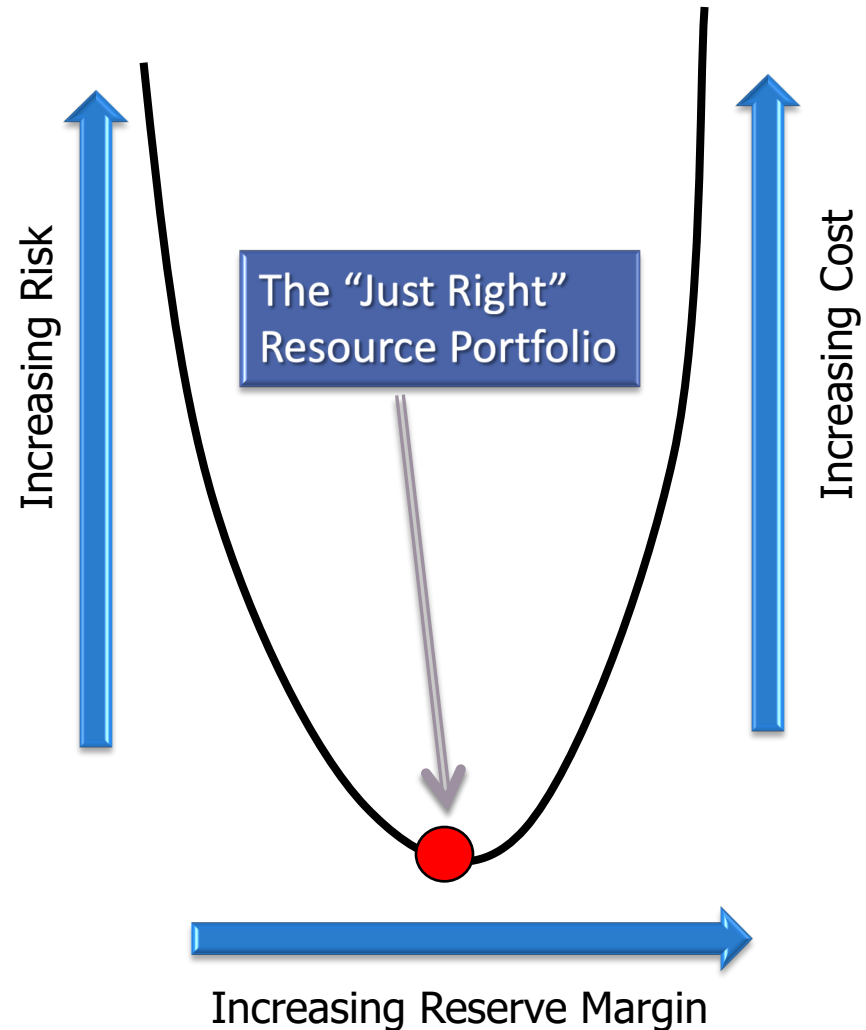
- Don't have too many resources
- Don't have too few resources
- Have “just the right amount” of resources*

**The “right amount” means not only the quantity developed, but the timing of their development and the mix (type) of resources required to provide energy, capacity, flexibility, and other ancillary services for system reliability, including risk management and resilience.*

Solving the “Goldilocks’ Problem” Requires Analysis Comparing *Cost* and *Risk* of Alternative Resource Options



- Market Purchases/New Resources
- Firm Contracts/Existing Resources



IRPs Attempt to Find the “Just Right” Resource *Timing, Type* and *Amount* by Answering Six Simple Questions

1. *When Will We Need Resources?*
2. *How Much Will We Need?*
3. *What Should We Build/Buy?*
4. *How Much Will It Cost?*
5. *What’s the Risk?*
6. *Who Can We Blame If We Get It Wrong?*

Application of Integrated Resource Plans

- IRPs supports utility actions and investments in resource development on both the demand side and supply side including, but not limited to:
 - ▣ Energy efficiency and other DER program budgets and targets
 - ▣ RFPs for generating resource acquisitions
 - ▣ Avoided cost proceedings for PURPA
 - ▣ Resource retirements
 - ▣ Transmission infrastructure development
 - ▣ Market reliance decisions
- IRPs provide transparency to consumers and offers stakeholders a meaningful (and public) opportunity to comment on proposed resource strategies