

# Transmission: the Critical Link

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## *The benefits of Independent Transmission*

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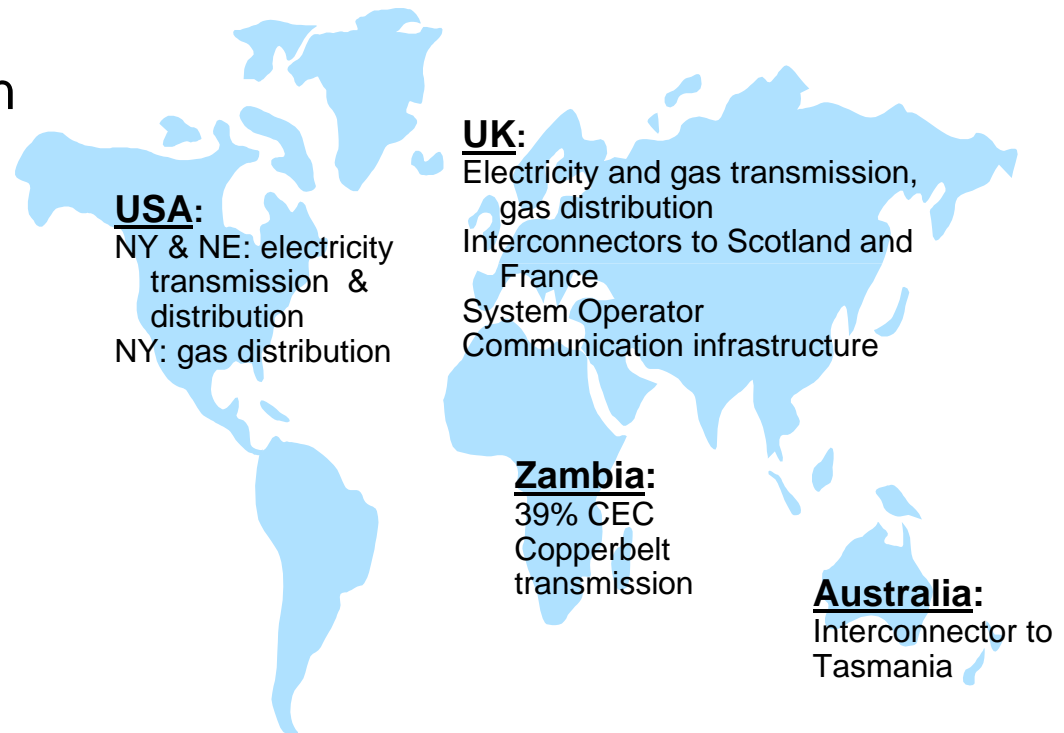
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# Who is National Grid?

- ◆ **One of the world's largest investor owned utilities**
  - ◆ Market cap of \$25 billion
- ◆ **One of the 10 largest utilities in the US**
  - ◆ 3.7 million electric and gas customers in New England and New York
- ◆ **Clear business focus:**
  - ◆ Develop, own, and operate premier energy delivery networks

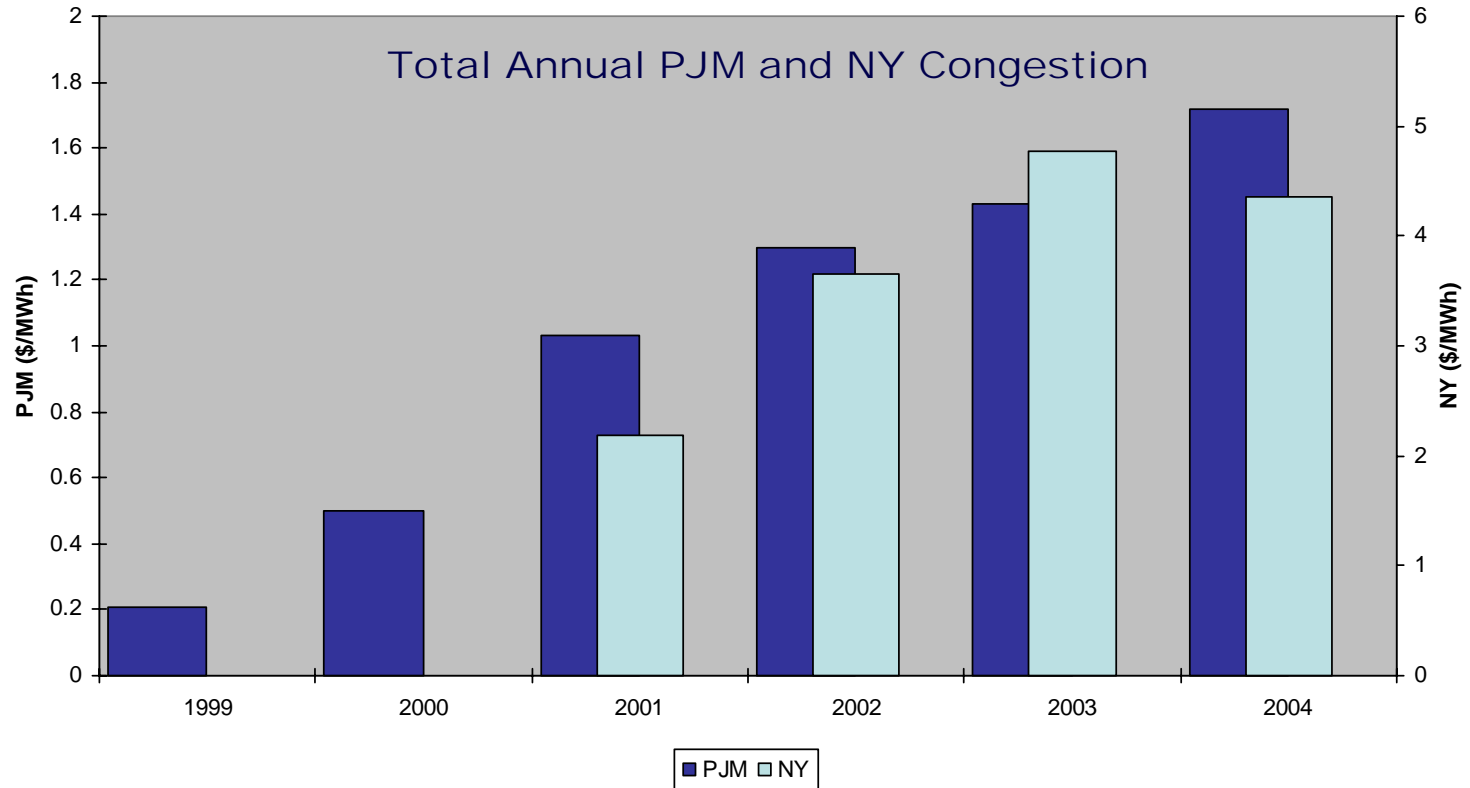


# Key messages

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- ◆ **Transmission is the critical link for enabling competitive electricity markets**
- ◆ **Transmission is a market facilitator, not a market product**
- ◆ **Increased transmission investment is required to deliver customer benefits both in market and non market regions**
- ◆ **Policies that recognize role of transmission as market enabler must be implemented to ensure reliable and economic system**
- ◆ **Independent Transmission will help deliver these customer benefits**

# Increasing Congestion



Source: Congestion Costs from PJM State of the Market; 2004 State of the Market Report, NYISO.

The PJM and NYISO congestion values are the total congestion revenues (rents) collected.

PJM has developed an unhedgeable congestion metric for use in economic planning. NY is in the process of doing the same.

# Inadequate Transmission Produces Market Problems

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- ◆ **Transmission constraints preserve protected markets and create opportunity for exercise of market power.**
- ◆ **This prompts need for mitigation which, in turn, prevents some generators from recovering costs.**
- ◆ **Retirements in constrained areas can affect reliability.**
  - ◆ RMR contracts to preserve reliability
  - ◆ Regulated COS generation interferes with market
  - ◆ PJM and NY addressing retirement notification
- ◆ **Inability to recover capital costs leads to dependence on capacity market designs that are often very expensive for customers.**

# Roadblocks to Adequate Transmission

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- ◆ **Planning and pricing policies that view transmission as a market product vs. market enabling infrastructure**
  - ◆ Ignore the “Commons” nature of transmission
  - ◆ Distinguish reliability v. economic upgrades
- ◆ **Accompanied by cost allocation/recovery policies that**
  - ◆ Rely on voluntary participant funding
  - ◆ Attempt to identify specific beneficiaries
  - ◆ Fail to recognize network benefits
- ◆ **Federal v. state jurisdictional issues**
- ◆ **Fragmented nature of transmission ownership/operation**
- ◆ **Lack of independence of transmission from generation**

# Policies That Support Transmission

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- ◆ **Robust regional transmission planning processes for reliability and economics**
- ◆ **Fair and workable cost allocation processes, recognizing transmission as market enabler**
- ◆ **Federal and state cooperation on cost recovery and siting**
- ◆ **Incentives to induce adequate investment**
- ◆ **Support of ITC development through tax incentives, revised functional delegations**

# Regional Transmission Planning

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- ◆ **A robust planning process should:**
  - ◆ **Identify reliability and economic needs of the system**
    - ◆ PJM and New England; New York is reliability only
  - ◆ **Focus on planning time horizon sufficient to allow a variety of options, including transmission, to meet needs**
  - ◆ **Contain well-defined timelines for approval of cost-effective regulated transmission remedies to identified needs**
  - ◆ **Be coordinated with capacity market design**
  - ◆ **Fully value the benefits of transmission, including enhanced reliability, reduced market power, lower overall electricity prices, environmental improvements, and facilitating energy policy**

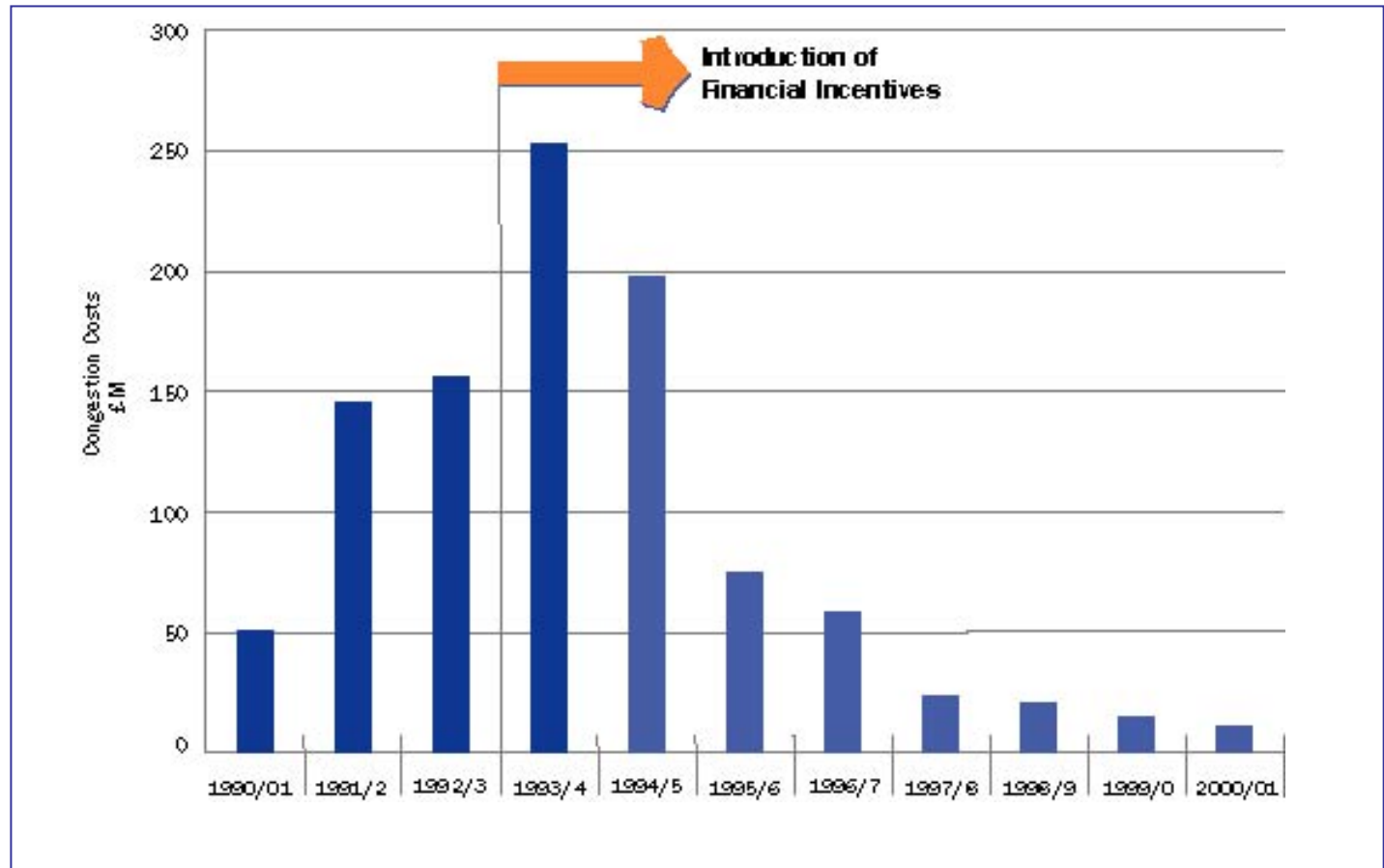
# Broadening Regional Markets through Wide-Area ITC Development

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- ◆ **Independent Transmission Companies (ITCs) focus solely on transmission asset management and operation**
- ◆ **Vertically integrated utilities typically do not invest adequately in transmission**
  - ◆ **Internal competition for capital**
  - ◆ **Transmission investment can harm generator revenue**
- ◆ **Wide-area for-profit ITCs**
  - ◆ **Can have incentives to control costs and enhance system performance**
  - ◆ **Have advantages of economies of scale**
  - ◆ **Will deliver benefits to customers through transmission focus and innovation**

# Success with Wide-Area ITCs

## Congestion Costs in England and Wales



# The Ideal Market Structure



- ◆ Independent administrator
- ◆ Stakeholder Input on market rules



- ◆ Fully competitive
- ◆ No requirements for reliability contracts
- ◆ Limited regulatory oversight or market monitoring



- ◆ Independent platform for the market
- ◆ For-profit, but regulated and under regional planning
- ◆ Operational and ownership synergies

# Fair and workable Cost Allocation

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- ◆ **Should be clear, well-defined, repeatable**
- ◆ **Avoid case-by-case allocation that invites endless debate and litigation**
- ◆ **Costs should be allocated broadly to reflect:**
  - ◆ **Transmission's widespread benefits**
  - ◆ **That transmission's beneficiaries change over time**
- ◆ **Regional cost allocation should include reasonable costs incurred to site projects**
- ◆ **Cost allocation issues easier under a wide-area ITC**

# Conclusion

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- ◆ **Transmission is market enabler, not market product.**
- ◆ **Inadequate transmission investment is key obstacle to delivery of competitive benefits to customers.**
- ◆ **Policies must recognize role and importance of robust transmission infrastructure**
  - ◆ **To ensure reliability and long-term resource adequacy**
  - ◆ **To reduce customer costs**
- ◆ **Independent Transmission will help deliver these customer benefits**

# Questions?

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Find [Transmission: The Critical Link](http://www.nationalgridus.com/transmission_the_critical_link/) at:  
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