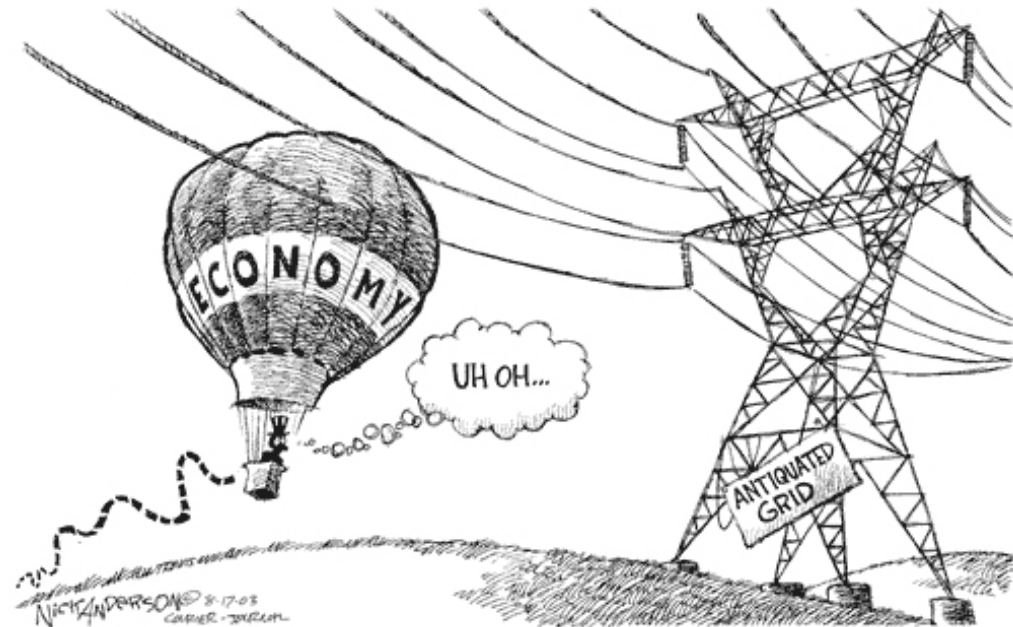


TRANSMISSION FINANCING

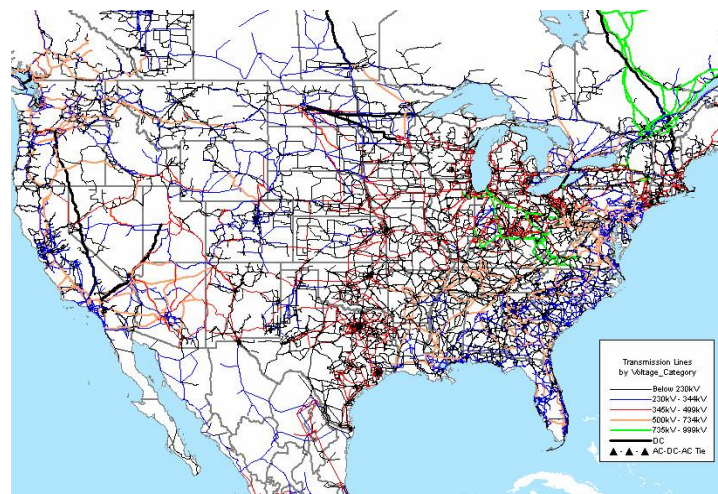
*Presented by Gary Krellenstein
JPMorgan Public Power Group
(212) 270-7828*



STRICTLY PRIVATE AND CONFIDENTIAL

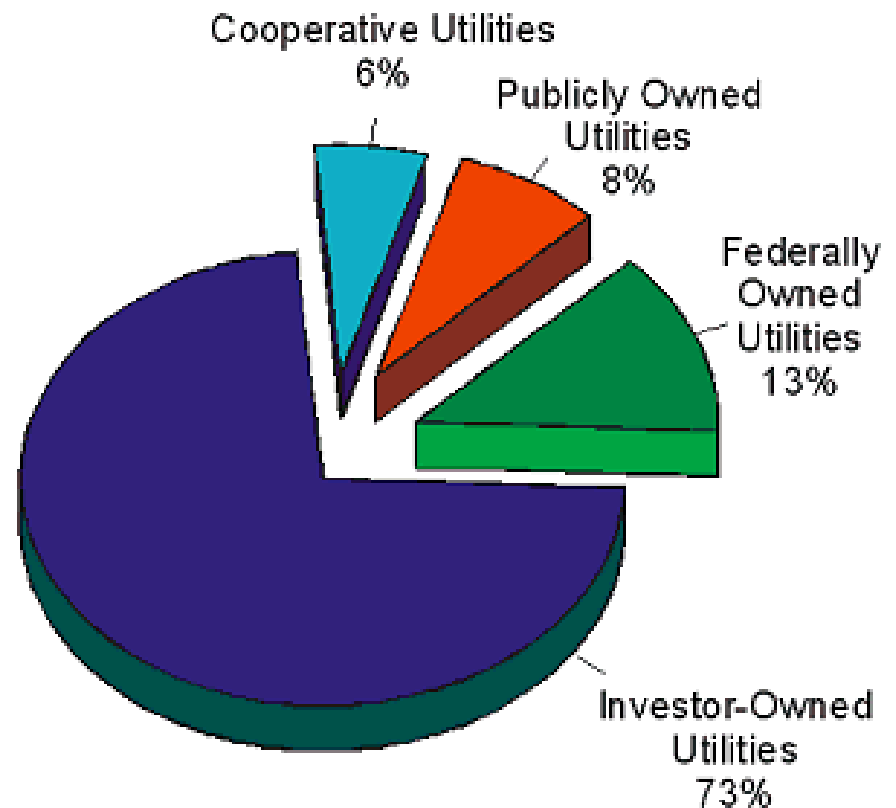
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Current breakdown of transmission line ownership¹

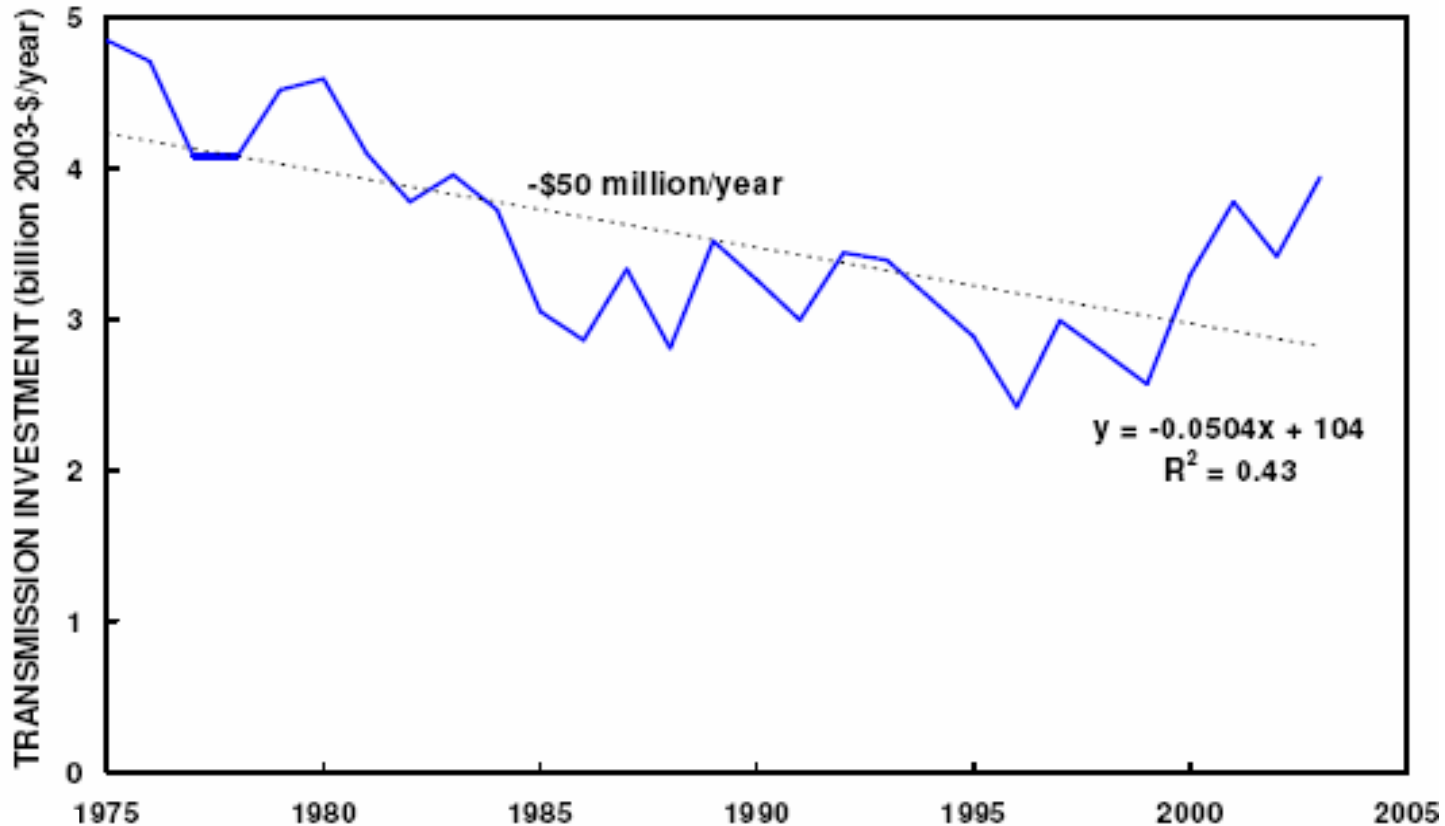
- Transmission represents about 10% of total utility assets (est. \$80 billion)²
- 70% are owned by vertically-integrated utilities



1- "Fortifying the Nation's Transmission Grid"; Moody's Investor Service, Dec 2004,
2- "Grid 2030 - A National Vision"; DOE, July 2003

US transmission investment has declined over the past 30 years...

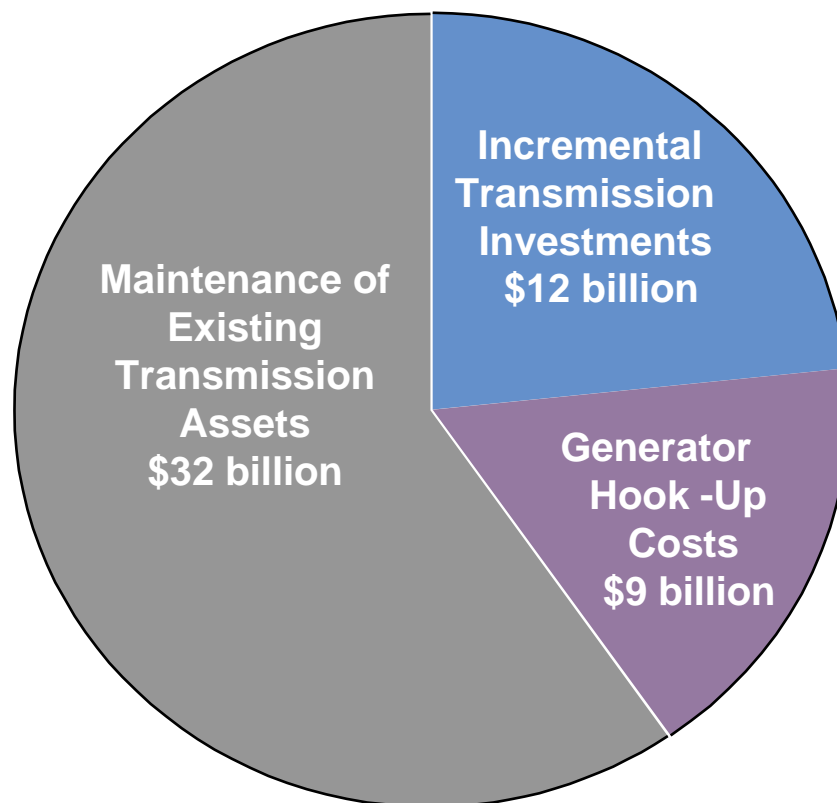
- Overbuilding of HV lines in the 1970s explains part of the decline



Annual Transmission investments by Investor-Owned Utilities – 1975 through 2003

Source: "US Transmission Capacity: Present Status and Future Prospects"
Eric Hirst for EEI/DOE, June 2004

...but growth in demand and congestion may require \$50 billion* in new investments by 2030

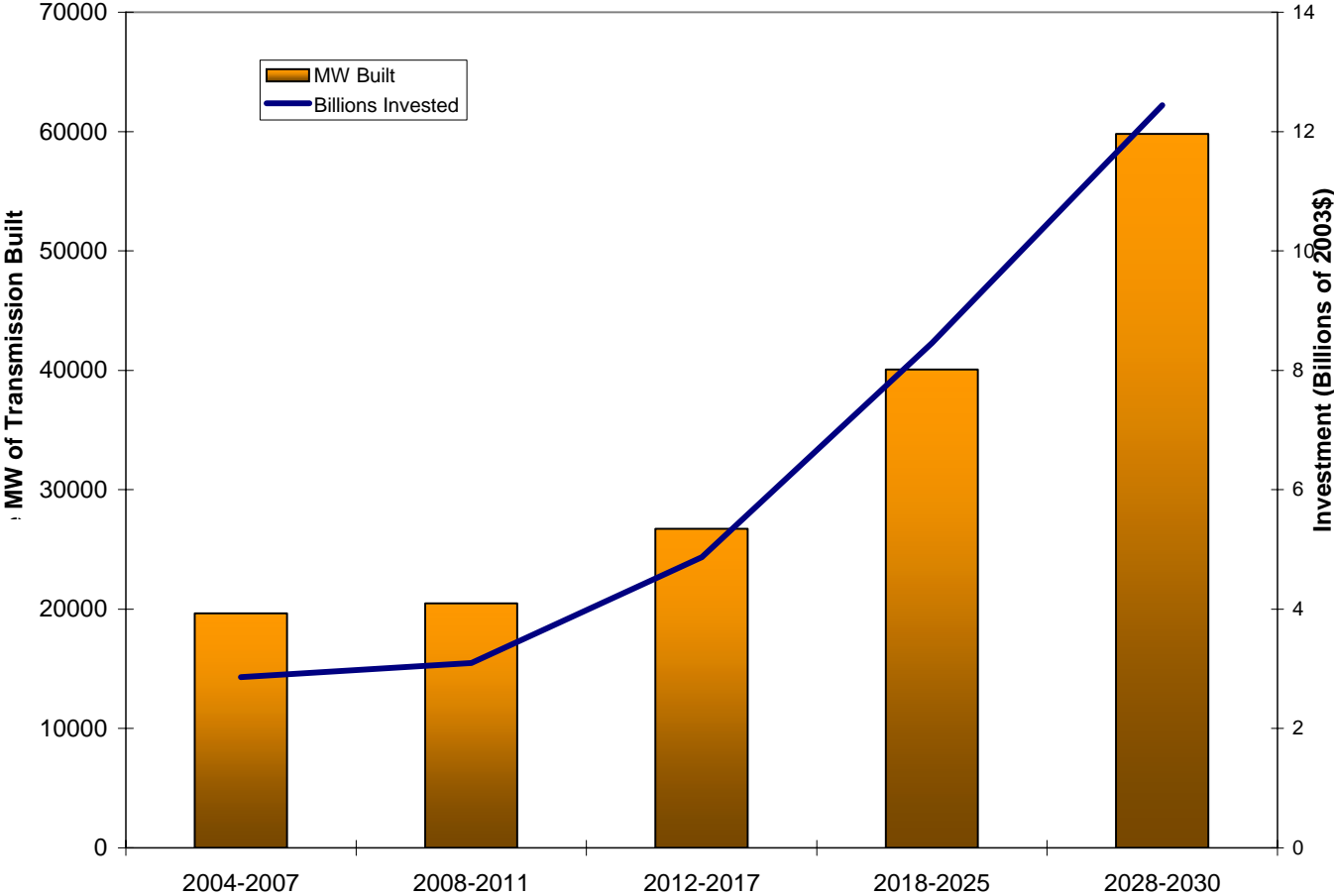


- Use of new technologies to replace existing lines (e.g., 3M's composite conductor) could significantly change this estimate

*Source: ICF Study for KKR, Public Utilities Fortnightly article, October 2004

Cumulative new line builds by investment year

OVERVIEW OF US INVESTMENT IN TRANSMISSION



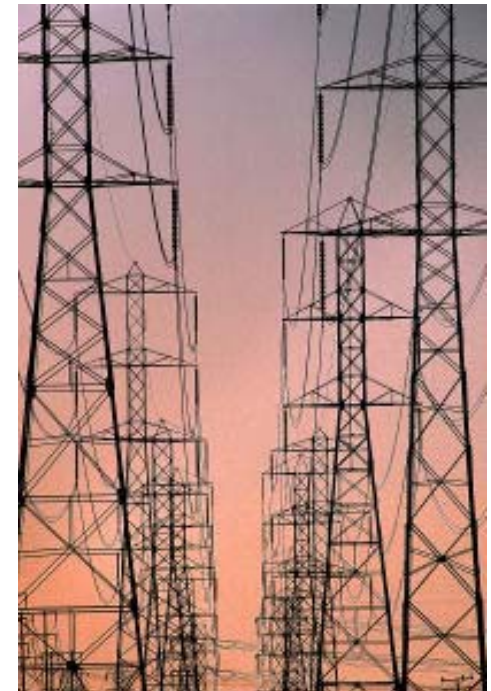
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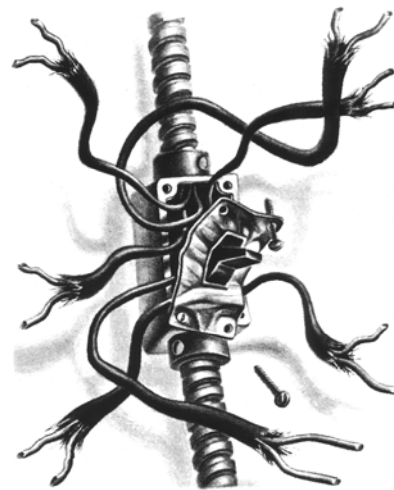
Transmission Financing: The “Old” Environment

- Owned and financed by utilities
- Utilities pledged system’s net revenues and assets as security for monies borrowed
- Transmission investments and O&M costs were recovered through the retail price of electricity
- Investors were willing to accept relatively low returns because of minimal risks
- Blackouts provided indirect “feedback” loop spurring regulators and utilities to invest more in transmission



The “New” Environment

- Transmission is becoming “unbundled”
- 67% of US load now served by RTOs/ISOs
- Utilities’ ability and willingness to finance and own transmission projects is decreasing
- Complex cost recovery with a portion based on “locational marginal pricing”
 - LMP falls with expanded capacity - no incentive to build
- “Feedback loop” caused by blackouts is short-circuited



The Problems

- Reduced incentive to invest in transmission in a “quasi-deregulated/unbundled” market
 - Uncertainty about cost recovery and pricing mechanisms
 - Uncertainty about future ownership and control
 - Intervention by suppliers that benefit from transmission “bottlenecks”
 - Siting issues, litigation, and adverse public reaction to new lines
 - Upside potential for investors still limited by regulators
- Potential conflicts of interest in financing transmission lines that enhance competition



“Just sign on the dotted line and your industry will be deregulated.”

Conflicts of interest

- Transmission manager shouldn't own generation
- IOUs may have a fiduciary responsibility to shareholders not to invest in new transmission lines if they have high rates in a transmission constrained service area
 - Example: Stockholder in an IOU with coal generation in a constrained service area that's getting gas-based power prices 30 - 50% of the time -- doesn't want new transmission lines that enhance competition
- Public power (municipal, coops and federal utilities) does not share this problem since their goal is to maximize benefits to their customers - not shareholders



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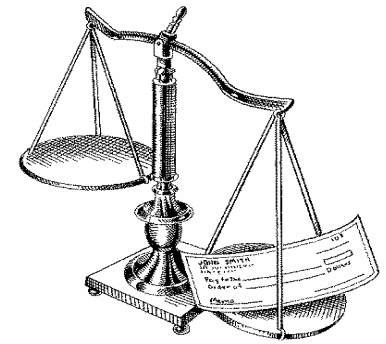
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How will future transmission be financed?

- Despite greater investment risk, most transmission-related expenses will continue to be financed by utilities, particularly for maintenance of existing assets
- New lines used to enhance competition will probably be financed by a mixture of utilities, “independent” transmission companies, and third-party investors
 - Public Power will likely continue using “**system financing**”
 - Because of “unbundling”, IOU’s may have to fund a portion of their transmission needs using “**project financing**”
 - Independent transmission companies will have little choice but to use “**project financing**”





“System” versus “Project” financing

System Financing:

- Utility guarantees repayment of the funds used to build transmission projects
 - Repayment not project specific
 - Relatively easy to obtain financing at “normal” rates

Project (and merchant) Financing:

- The successful operation of the project is the primary source of revenues to repay investors
 - No recourse to other moneys/assets if the project fails to operate as expected
 - If pre-construction contracts for project’s use do not extend to the life of the financing or provide insufficient revenues to cover all costs, the project is considered to have “merchant” risk

“Project financing” (particularly if it has a merchant component) is considerably more expensive than “system” financing

Typical attributes of “Project” financing

- Higher financing costs
- Primarily bond financed (60% - 80%) with the balance comprised of equity, mezzanine debt (deeply subordinated bonds) and/or “B” loans
- Usually non-rated or sub-investment grade
- Amortization schedules are shorter than system debt (e.g., 12 years versus 20 - 30 year), requiring higher annual cash flow
- Securities have low liquidity (difficult to sell in the secondary market)
- Limited universe of investors (many mutual and pension funds are prohibited from buying sub-investment grade credits)
- Specialty boutique firms such as KKR, Trans-Elect, Evercore, ArcLight, Translink, Macquarie, etc., are likely to be primary sources of capital for “independent” transmission projects

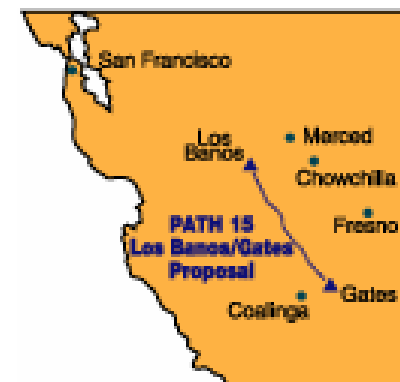


Obtaining funding for “Project” financed transmission has been difficult

Few stand-alone transmission projects have been successfully financed

Path 15 - California

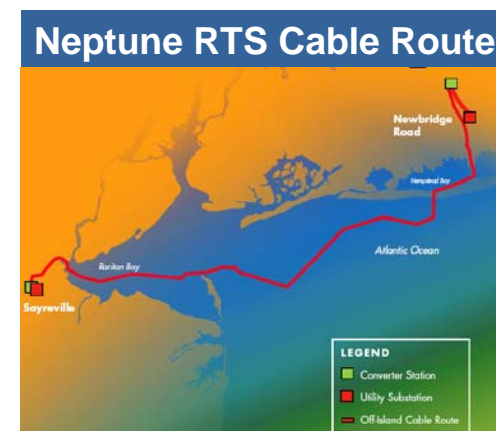
- Despite clear benefits for both price and reliability, required several years to acquire financing
- First “Greenfield” transmission line to ever be project-financed
- Status: Expected to be operational by year’s end



Path 15

Neptune Project - Long Island

- No merchant risk - contracts with LIPA
- Received virtually all its major permits
- Status: Project Financing expected 2005 - may get investment grade rating



Empire State / Conjunction LLC - upstate NY

- Lower priced power available in upstate NY
- Unable to get pre-construction contracts despite need for transmission to NYC and economic benefits
- Status: Investors unwilling to fund; project cancelled November 2004

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“We’re only in it for the money”

Investor considerations

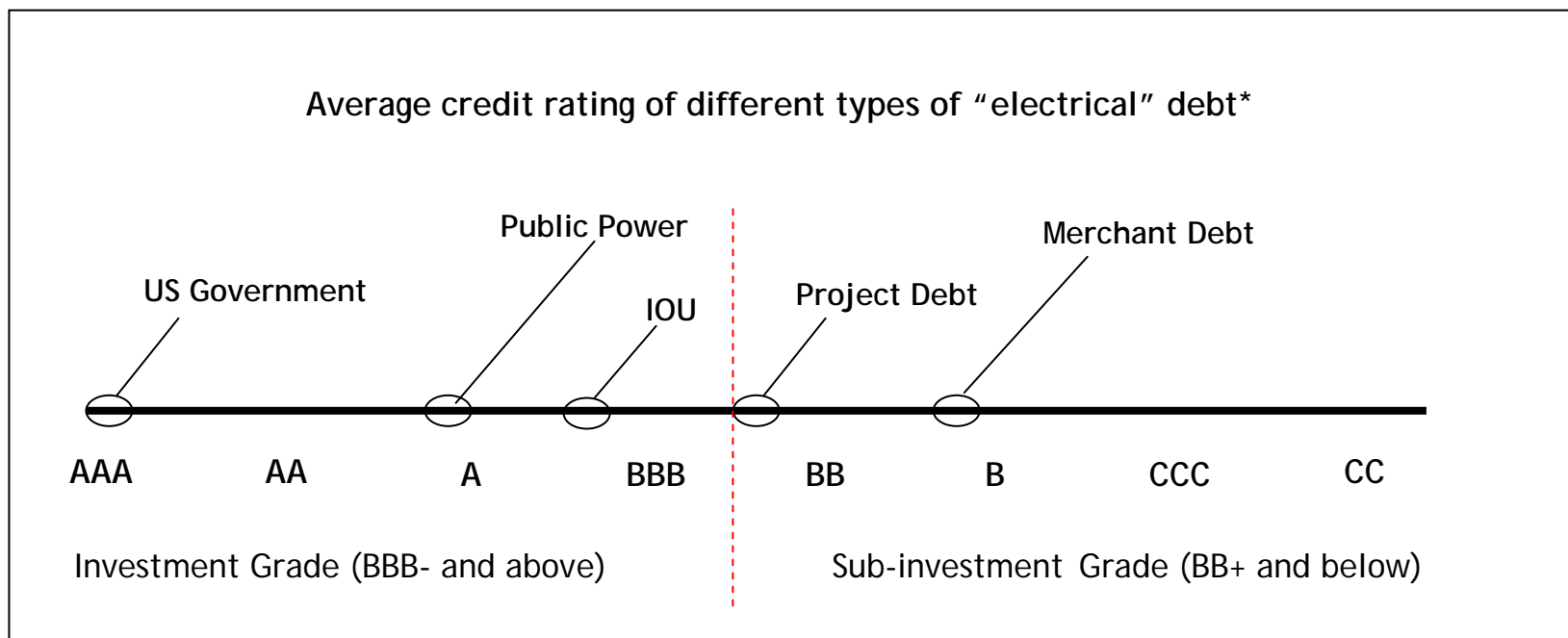
- Past experience with merchant plants and energy traders
- Relative return on investment (ROI)
- Credit quality & structure
- Secondary market liquidity
- Expectations for interest rates and “credit spreads”

Social benefits (lower power costs, greater reliability) are not prime considerations for investors



The importance of credit quality - the higher the ratings, the lower the costs

- Ratings are set by three agencies, Moody's, Standard & Poor's, and Fitch
- Bond ratings range from Aaa/AAA (very secure) to D/D (in default or bankruptcy)
- Non-recourse "project financed" facilities are often sub-investment grade (below Baa3/BBB-), an important threshold for many investors

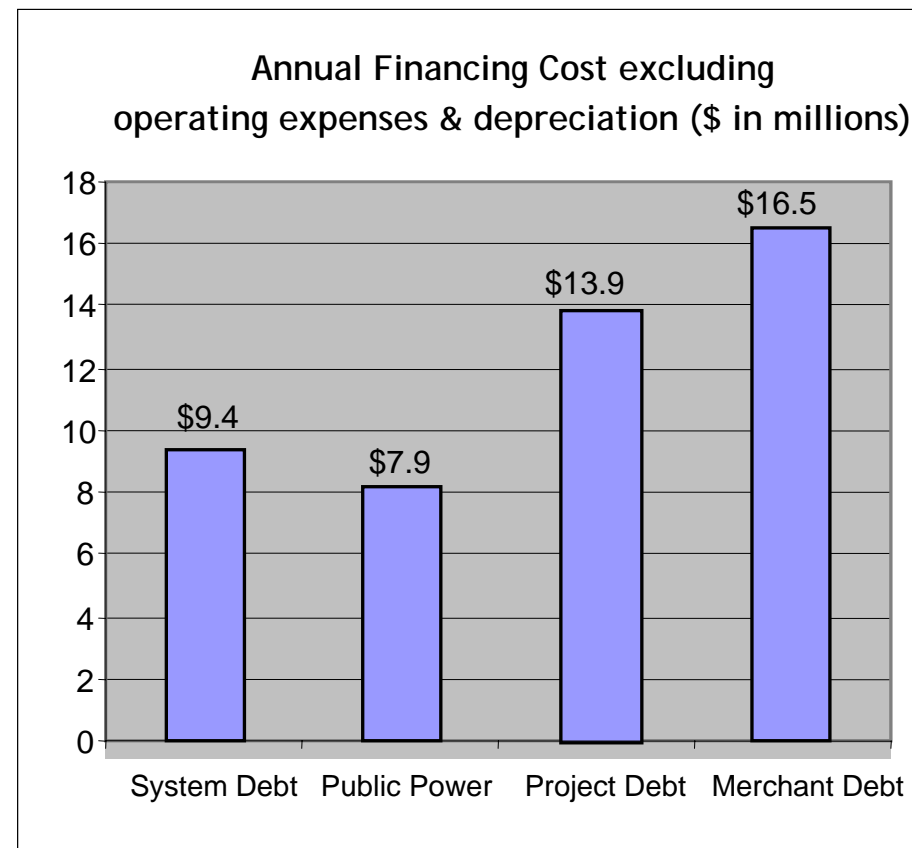


*Source: Standard and Poor's: Presentation to JPMorgan Power Conference, Oct 2004

Structure and credit quality have a large impact on transmission financing costs and cash flow

Sample cash-flow requirements for \$100 million project (including amortization)¹

- **System Financing - taxable**
60% debt/40% equity: BBB+ rating
WACC²: 7.0%: Annual Cost \$9.4 million
- **Public Power System Financing**
100% tax-exempt debt: A rating
WACC: 5.0%: Annual Cost \$7.9 million
- **Project Financing - no merchant risk**
75% debt/25% equity: BB+ rating
WACC: 9.5%: Annual Cost \$13.9 million
- **Project Financing - with merchant risk**
70% debt/15% equity/15% "B" loans: B rating
WACC: 13.0%: Annual Cost \$16.5 million

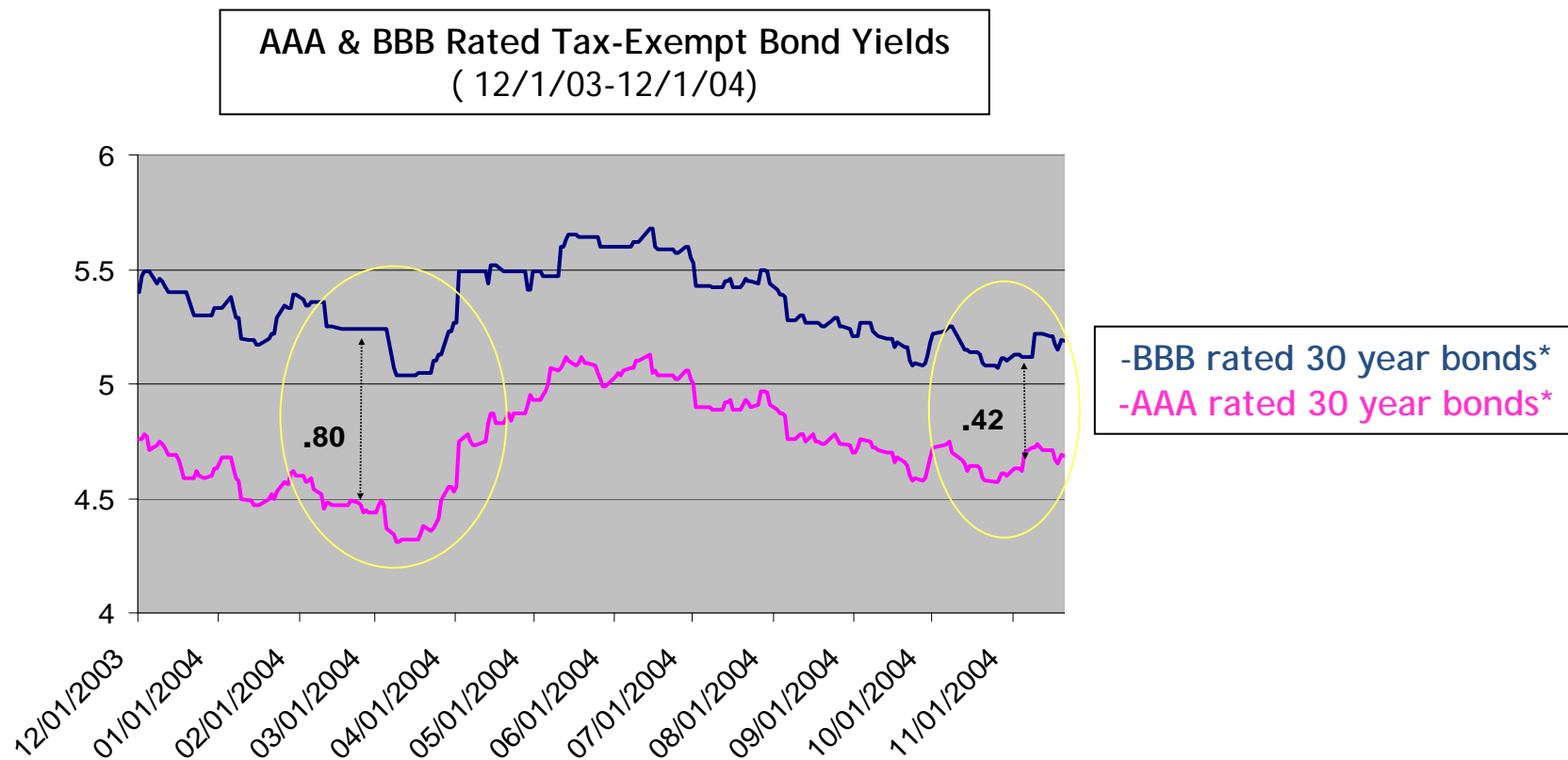


¹Assumes 20 year amortization for system financing and 12 year amortization for non-recourse project debt - estimates shown are for financing costs only, no operating expenses or tax benefits included

²Weighed average cost of capital

Other investor considerations - “credit spread” and interest rate risk

- After years of record low rates, investors are “yield starved,” causing credit spread compression (willing to accept smaller yields for riskier investments)
- Spreads are likely to widen when yields go back up, implying that relative cost of financing low rated transmission projects will increase



What do investors want?

Structuring a transmission project to minimize costs

- Demonstrated need for the project
- Minimal merchant risk - contracts that equal or exceed life of financing
 - Unconditional contracts¹: system financing
 - Conditional contracts²: project financing
- High quality counter-parties (users of project)
- Owner-equity participation
- Price, completion date, and performance guarantee from an EPC contractor with liquidated damage provisions
- Step-up provisions (for projects with multiple owners/users)
- Permits already approved or pending prior to seeking financing

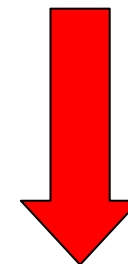
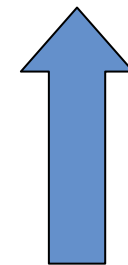
1- Also known as Take-or-Pay:, Hell-or-High Water, All-requirements, etc.

2- Also referred to as Take-and-Pay, Joint but not several, etc.

Financing matrix for transmission projects

Scenarios Ranked Highest to Lowest Credit Quality¹

Scenario	Contract Type	Step-up Provisions	Equity Contribution ²	EPC Contractor ³	Financing Cost
1	take or pay	yes	yes	yes	Lowest
2	take or pay	yes	no	yes	
3	take or pay	yes	yes	no	
4	take or pay	yes	no	no	
5	take or pay	no	yes	yes	
6	take or pay	no	no	yes	
7	take or pay	no	yes	no	
8	take or pay	no	no	no	
9	take and pay	yes	yes	yes	
10	take and pay	yes	no	yes	
11	take and pay	yes	yes	no	
12	take and pay	yes	no	no	
13	take and pay	no	yes	yes	
14	take and pay	no	no	yes	
15	take and pay	no	yes	no	
16	take and pay	no	no	no	
17	merchant	n/a	yes	yes	
18	merchant	n/a	yes	no	
19	merchant	n/a	no	yes	
20	merchant	n/a	no	no	



Highest

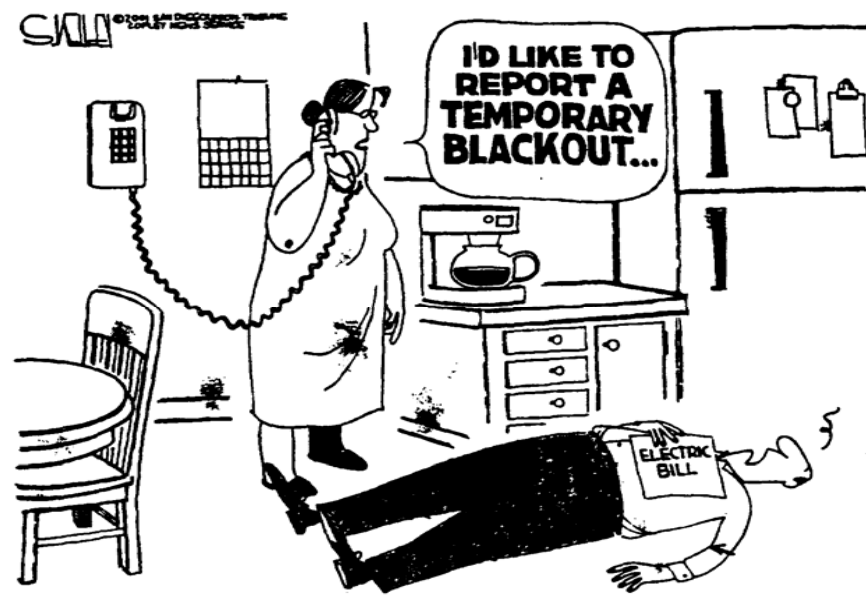
¹ Actual order will vary depending on factors such as size (%) of step-up provisions, equity contributions, credit quality of participants and/or EPC, type and limitation of step-up provisions, etc.

² Inclusive of reserve funds, rate stabilization funds, unrestricted cash, etc

³ Assumes - "liquidated damages" clause for failure to meet schedule/specs

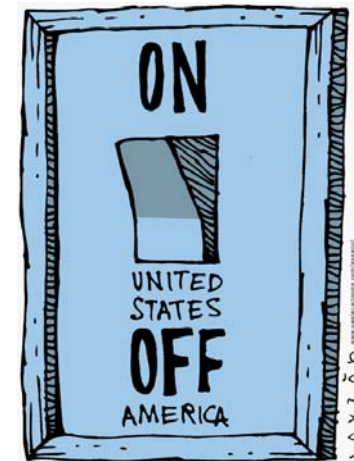
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Conclusions

- Financial issues, not technical issues, may prove to be the major constraint in improving the nation's grid
- Expected savings from "competitive grid system" will be lower than projected due to higher financing costs.
 - Given their experience with merchant power plants, investors will demand high premiums/ROI for non-utility secured transmission projects
- Some "needed" transmission facilities may not be built if "project" financing is the only option available, particularly if the facility has a merchant risk component
- The "public power" model¹ offers the lowest cost option to finance future transmission assets



¹Not for profit, non-regulated entity that can issue tax-exempt debt and whole goal is to maximize benefits to the ratepayers - not shareholders