

TUoS Options: Locational Signals

16th June 2009

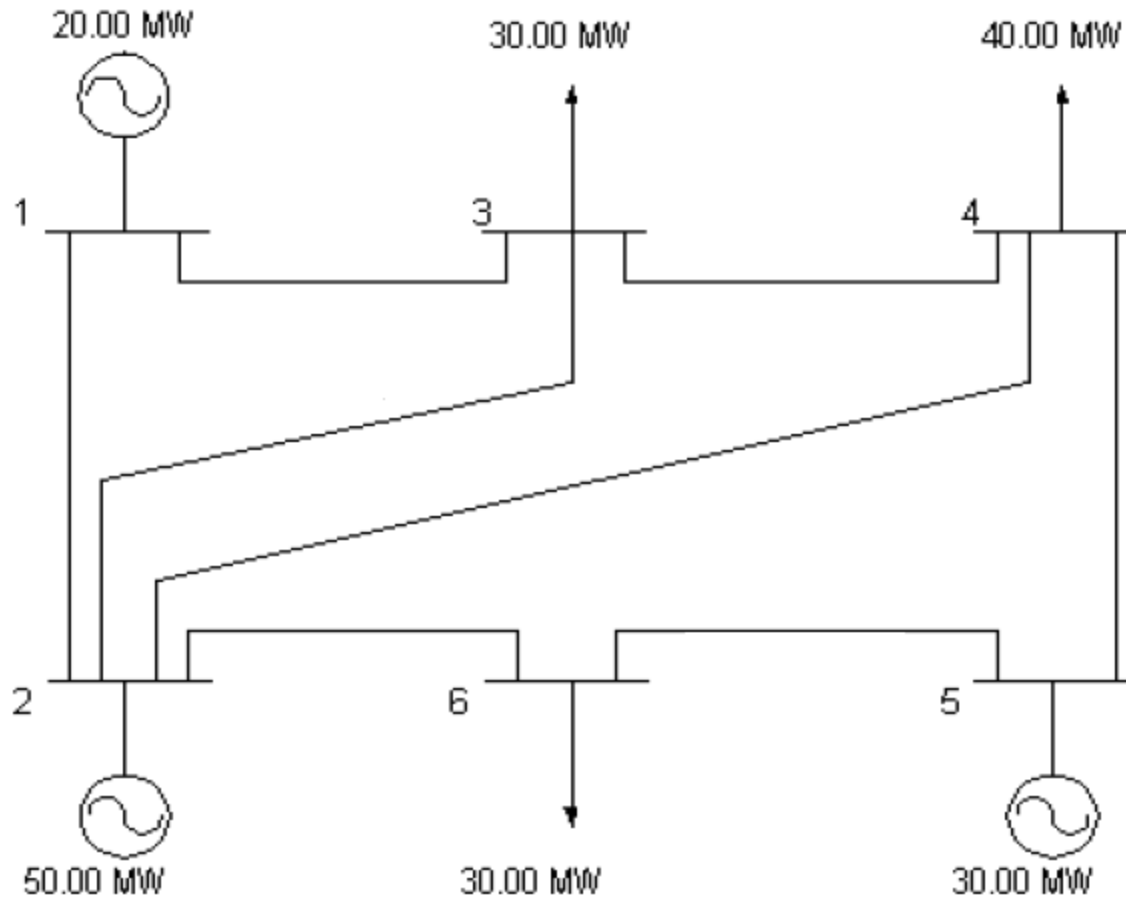
Introduction

- Network Pricing & Network Planning
- Static model
- Dynamic model

Static model

- Fixed generation and demand portfolio
- Fixed network to facilitate above
- Modern Equivalent Asset Valuation

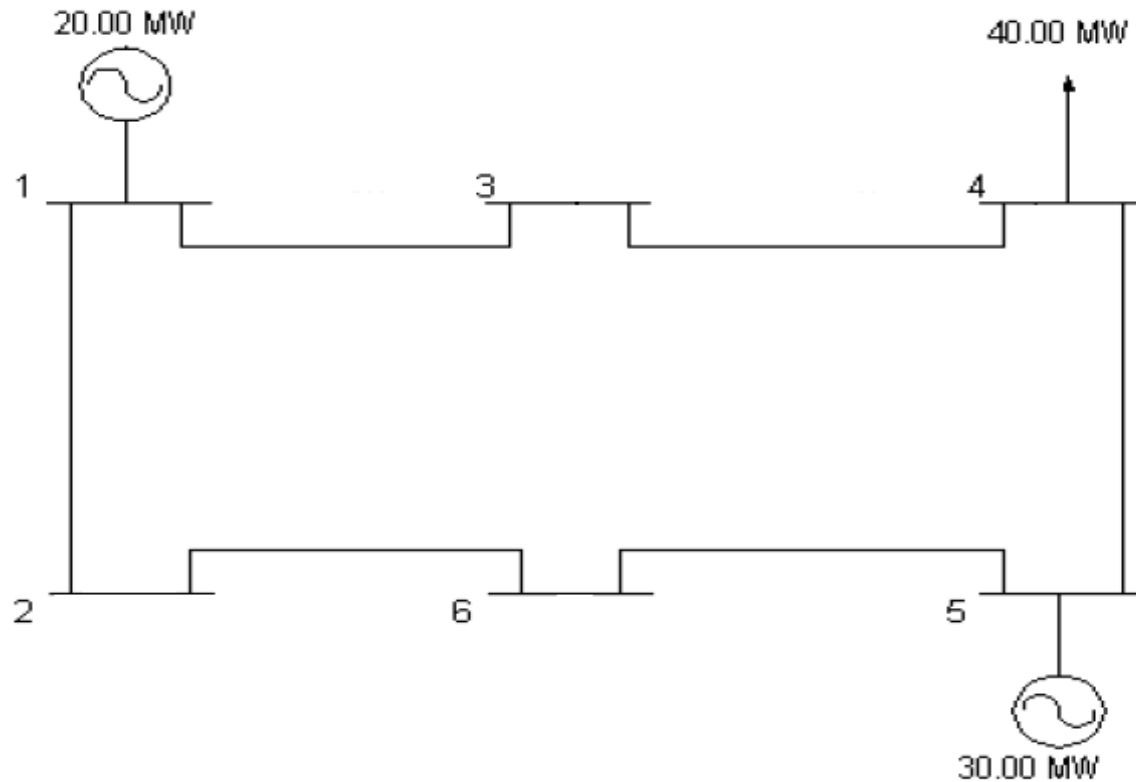
Static model



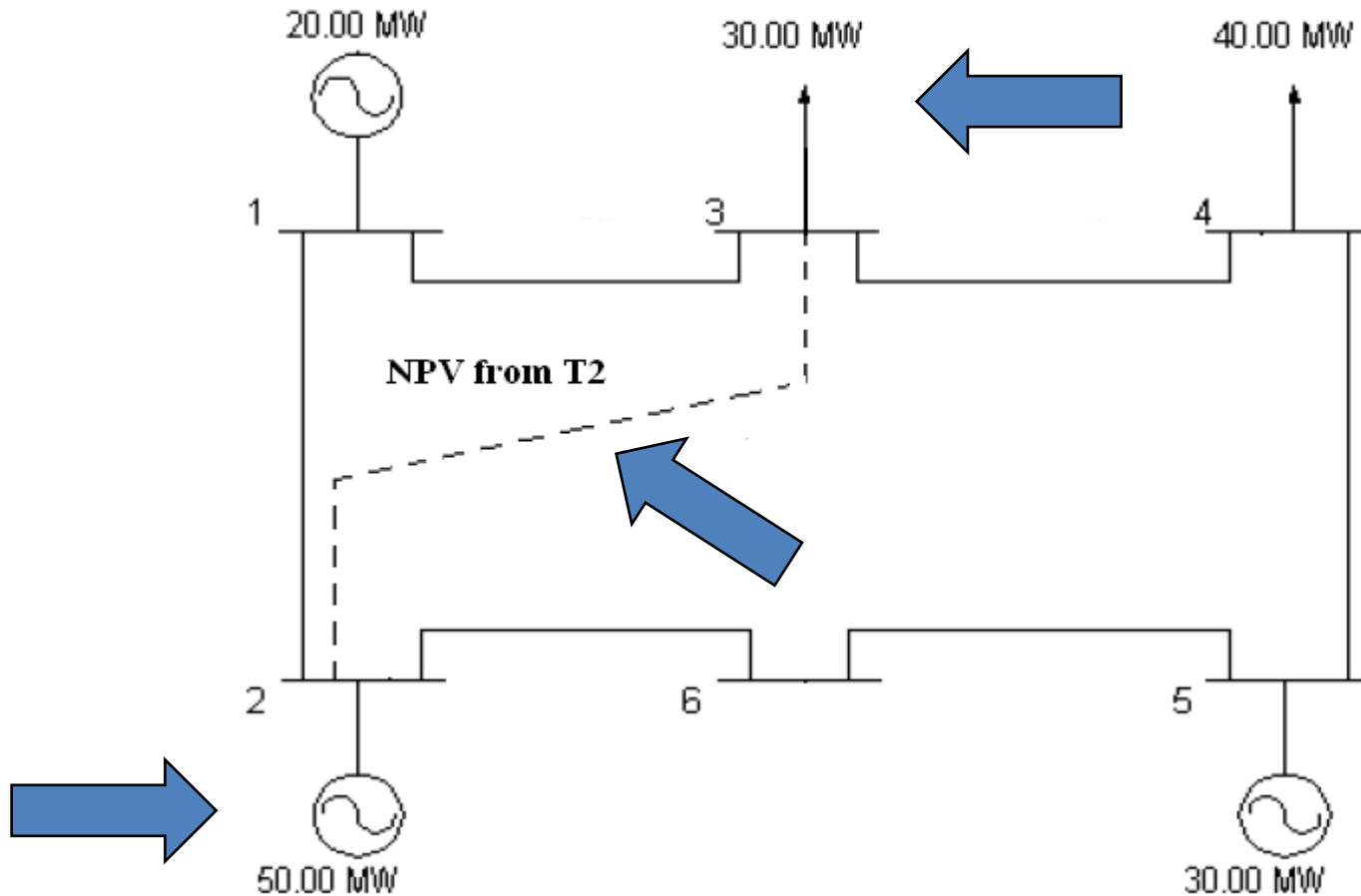
Dynamic model

- Future reinforcements requirements
- Net Present Value
- Sunk decisions should not drive future decisions

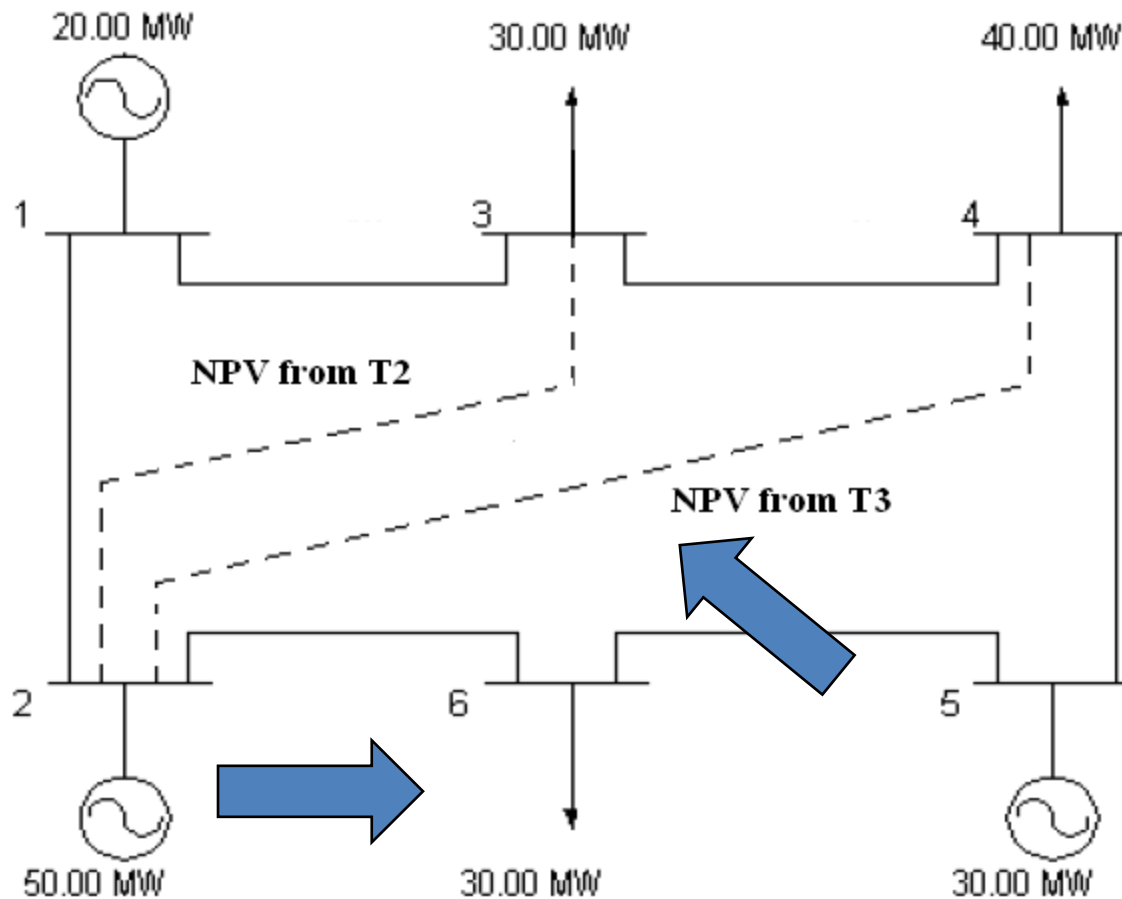
Dynamic model: Time 1



Dynamic model: Time 2



Dynamic model: Time 3



Dynamic model: NPV

- Average Cost
 - Reinforcement value in NPV terms
- Marginal Cost
 - Increment of power
 - NPV value of *change* in cost

Marginal Cost Example

- Reinforcement = Year 10
 - NPV = €100,000
- **Now** reinforcement = Year 9
 - NPV = €110,000
- Valuation = Δ Cost
 - €10,000 in NPV terms

Revenue Reconciliation

- Tariff Revenue Requirement
- Pure Locational & Multiplier
- Locational & Delta/Postage Stamping

Conclusion

- Consistency between pricing & planning
- Models are means to Value Network
- Revenue reconciliation

Conclusion

	Cost Reflective	Efficient future investment planning	Transparent	Predictable	Non Volatile	Consistent between generator & demand customer
Pure Transmission locational signalling Static Model	M	M	M	M	L	H
Pure Transmission locational signalling Dynamic Model	H	H	M	M	L	H
Marginal Investment Cost Based Pricing (with Residual) Static Model	M	M	M	M	M	H
Marginal Investment Cost Based Pricing (with Residual) Dynamic Model	M	M	M	M	M	H