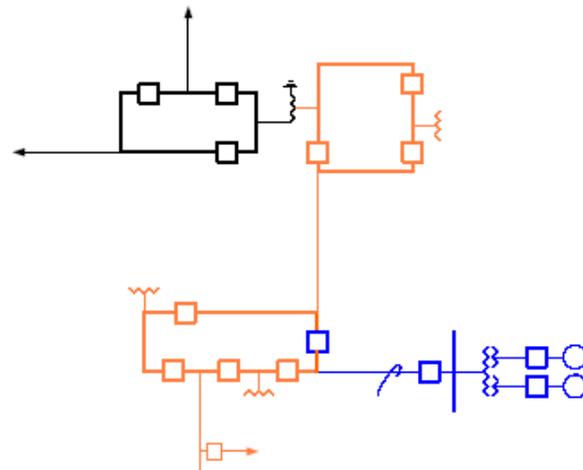


Transmission Barriers to Entry

Docket No. AD08-13-000

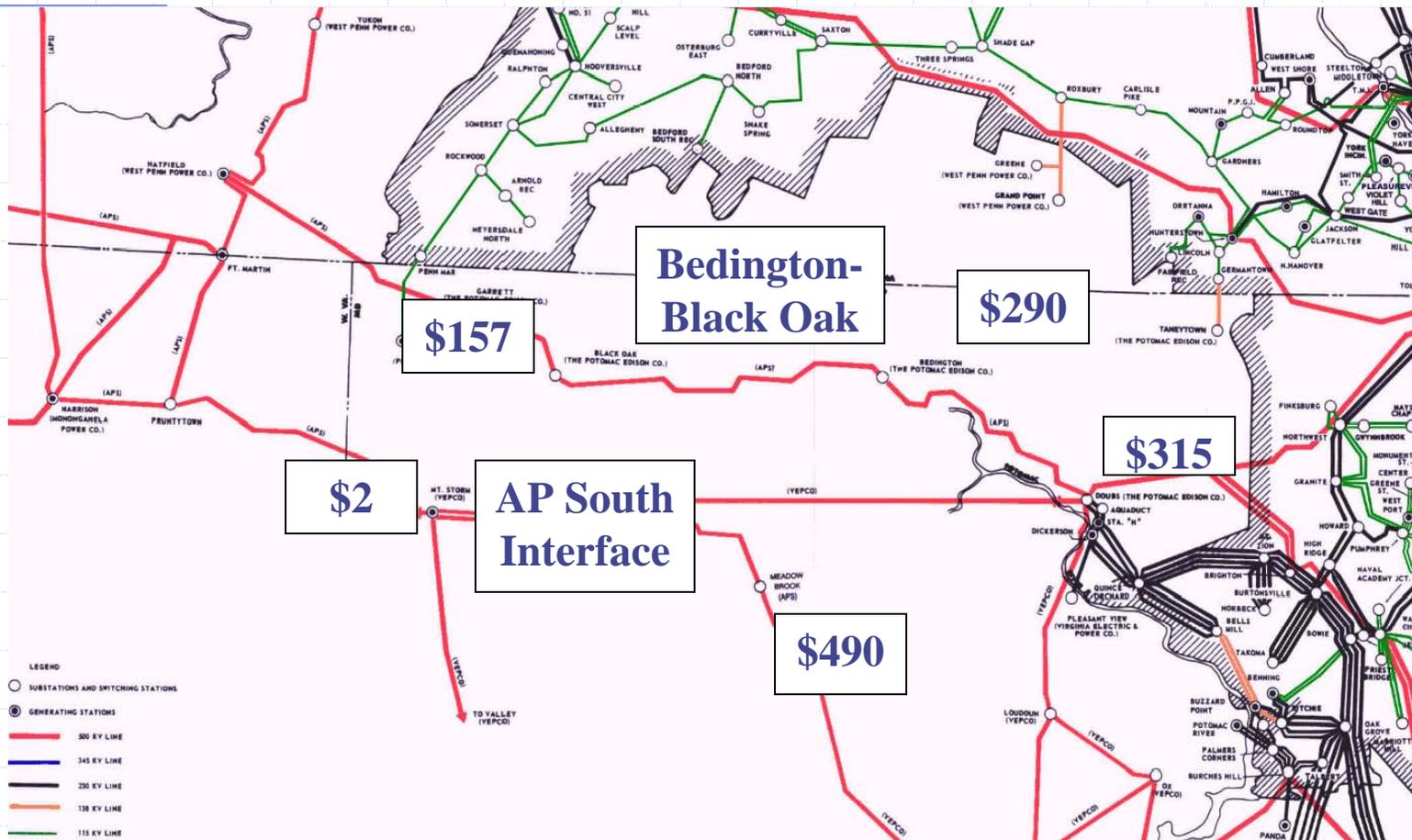
Robert J. Patrylo
Strategic Transmission
October 14, 2008



Introduction

- ◆ Over last five years Strategic Transmission and affiliates Chesapeake Transmission and H-P Energy have pursued merchant transmission projects.
- ◆ High energy congestion costs in PJM.
 - Transmission constraints due to load growth and lack of new infrastructure.
 - Oil/gas on margin in east, coal in west.
- ◆ Congestion means “off cost” operation – higher cost units dispatched ahead of lower cost units.
- ◆ Market power increases in constrained areas.
- ◆ Capacity costs have exhibited similar phenomenon.

Allegheny Mountain Corridor LMPs

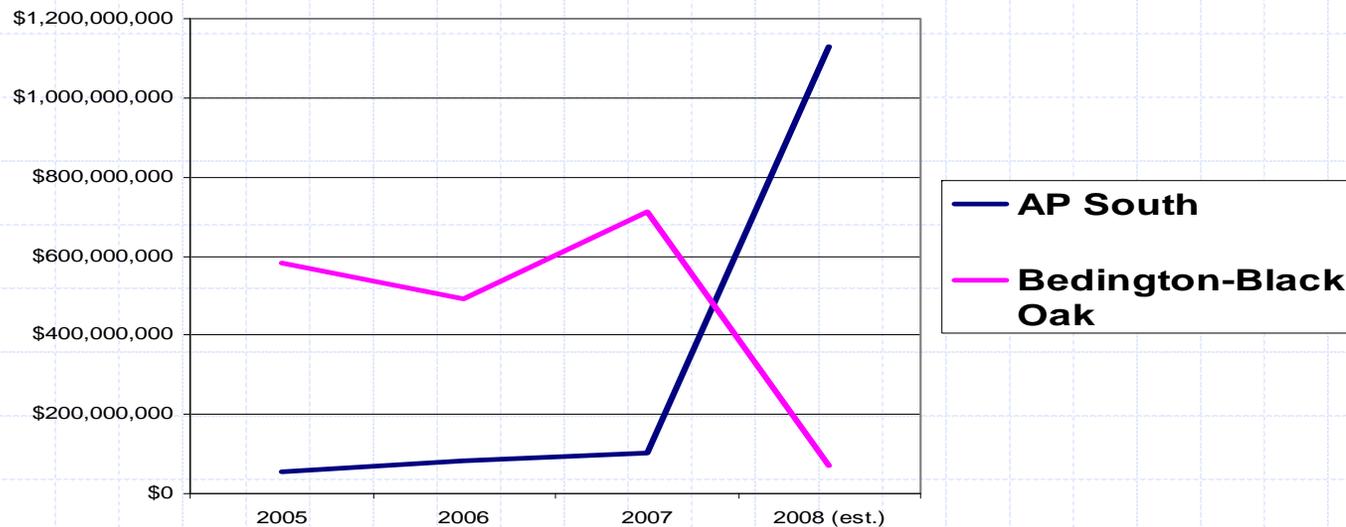


June 10, 2008, Hour 1700

Day Ahead Locational Marginal Prices (\$/MWh)

October 14, 2008

Allegheny Mountain Corridor Congestion



- ◆ Upgrade of Bedington-Black Oak 500 kv circuit shifted about \$1 billion in congestion costs from Bedington-Black Oak to AP South.
- ◆ Other large congestion costs on Cloverdale-Lexington 500 kv (PJM est. \$318,600,000 in 2008).

Merchant Transmission in PJM

- ◆ Upgrades receive rights for increase in transfer capability from unconstrained to constrained point/area.
 - Energy -- Incremental Auction Revenue Rights (IARRs)
 - Capacity -- Incremental Capacity Transfer Rights (ICTRs).
- ◆ Financial rights paid price difference between constrained and unconstrained point/area.
- ◆ No risk or cost to consumers.
- ◆ Small increase in transfer capability can dramatically reduce energy/capacity prices.
- ◆ Example: Bedington-Nipetown upgrade (Project R12) eliminated \$13.9 million of annual congestion costs.

Why Limited Merchant Activity?

- ◆ Basic framework for merchant transmission is sound.
- ◆ Projects can relieve energy congestion and/or capacity constraints with major benefits to load and to efficient operation of energy and capacity markets.
- ◆ Major problems are institutional:
 - Delays/hurdles in interconnection process.
 - Transmission owners (TO) have key roles in interconnection process, but are billion dollar beneficiaries of congestion.
 - Congestion relief is not fully recognized in the award of rights.
 - RPM timeline handicaps auction participation.

Status of Major Projects

- ◆ Project U2-028: Upgrade AP South reactive capability (200 MVAR capacitor) to reduce congestion costs by \$447 million/year.
 - Awaiting justification for lengthy study/installation time periods.
- ◆ Project T132: Upgrade Cloverdale-Lexington circuit.
 - Awaiting feasibility study that was due April 30, 2008.

Independent “Transmission Monitor”

- ◆ The Commission should consider an independent “Transmission Monitor” (or add these responsibilities to the existing Market Monitor role).
- ◆ (1) Monitor the interconnection process to reduce barriers to entry by new generation, transmission and demand response.
- ◆ (2) Monitor the roles played by transmission owners to limit their ability to delay/frustrate new entry.
- ◆ (3) Monitor the functioning of PJM's revised economic planning process.

Thank you.