EXHIBIT NO. ___(DEM-4C)
DOCKET NO. UE-11___/UG-11___
2011 PSE GENERAL RATE CASE
WITNESS: DAVID E. MILLS

BEFORE THE
WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION

WASHINGTON UTILITIES AND TRANSPORTATION COMMISSION, **Complainant,** **v.** **PUGET SOUND ENERGY, INC.,** **Respondent.**	**Docket No. UE-11____** **Docket No. UG-11____**

THIRD EXHIBIT (CONFIDENTIAL) TO THE PREFILED DIRECT TESTIMONY OF DAVID E. MILLS ON BEHALF OF PUGET SOUND ENERGY, INC.

REDACTED VERSION

JUNE 13, 2011

Energy Cost Risk Management

March 2007

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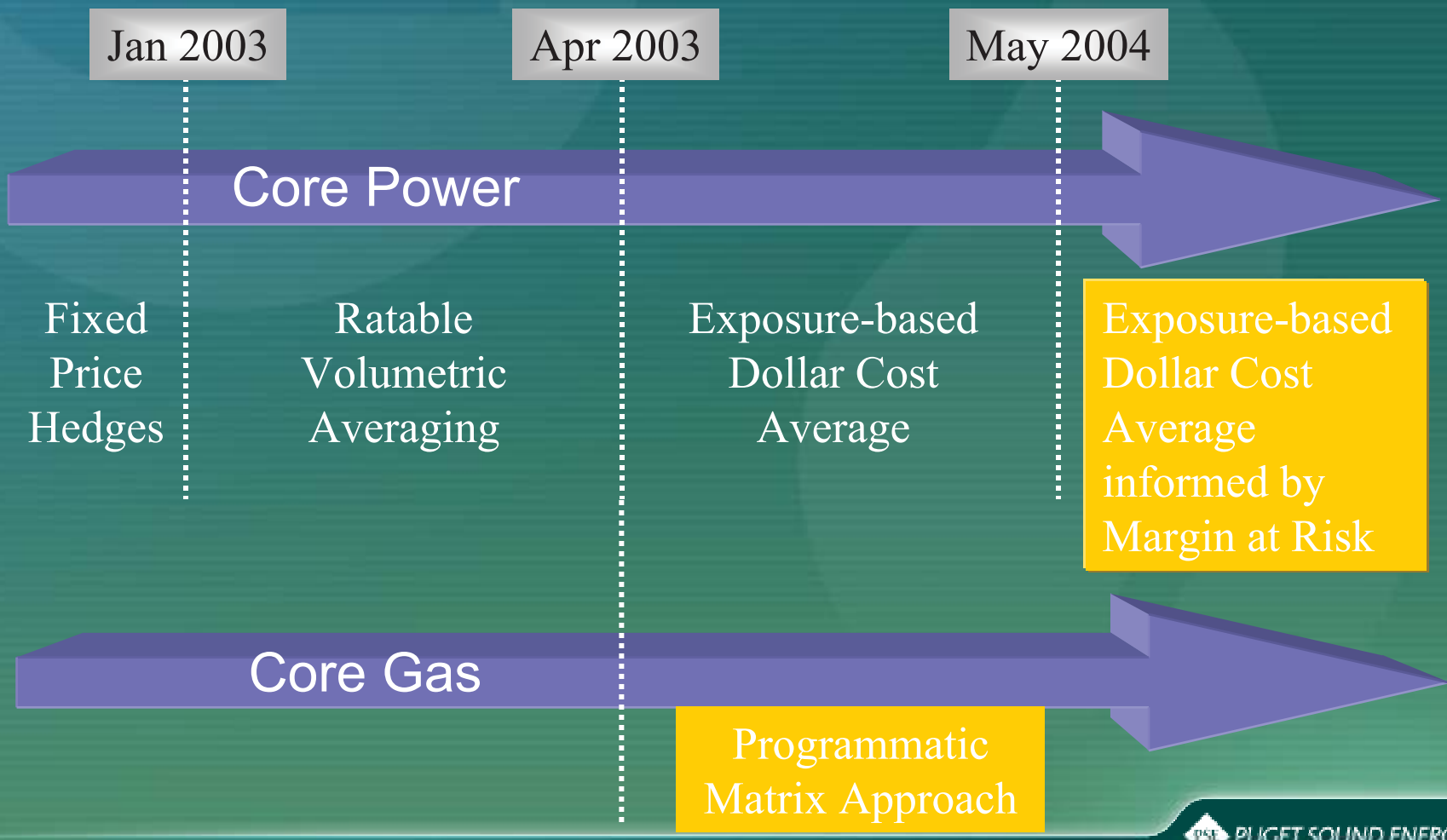
PSE actively hedges both our Gas & Power Portfolios to reduce risk and rate volatility

- Insulate customers from volatile wholesale commodity markets, and thus provide stable rates
- Reduce PSE's earnings volatility by removing power portfolio risk
- Both portfolios are hedged in a programmatic manner, but with some execution timing discretion
  - Minimum hedge requirements must be met regardless of price
  - Hedging can be accelerated/decelerated based on market view
- Existing hedge strategies are constantly being reviewed with an eye towards continuous improvement

PSE considers a variety of issues when making our energy commodity hedging decisions

- Probabilistic Position
  - Volumetric forecast given price volatility, weather variability, and resource outages
  - Portfolio $$$ exposure to spot market price fluctuations
- Power Cost & Margin @ Risk
  - Measures variability of power cost and earnings over specific future operating periods
  - Quantifies risk reduction as a result of incremental hedging
  - Allows for comparative assessment of different hedge strategies
- Fundamental Market Views
  - Attempts to lower costs to customers vs. purely mechanistic hedging

PSE's Hedging Strategies have evolved over time



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Core Gas hedging strategy is seasonal and programmatic ....

- Mandates that [redacted] of the average load be hedged going into winter (Nov - Mar).
  - Storage accounts for another [redacted] hedged
- Mandates that [redacted] of the average load be hedged going into summer (Apr - Oct)
  - Storage is [redacted]
- Hedging is accelerated if market prices drop below our "threshold price level"
- Whole Portfolio approach
  - We hedge the most volatile & likely high priced supply regions, based on probabilistic outcomes and volatility analysis, (Sumas, Rockies or AECO)

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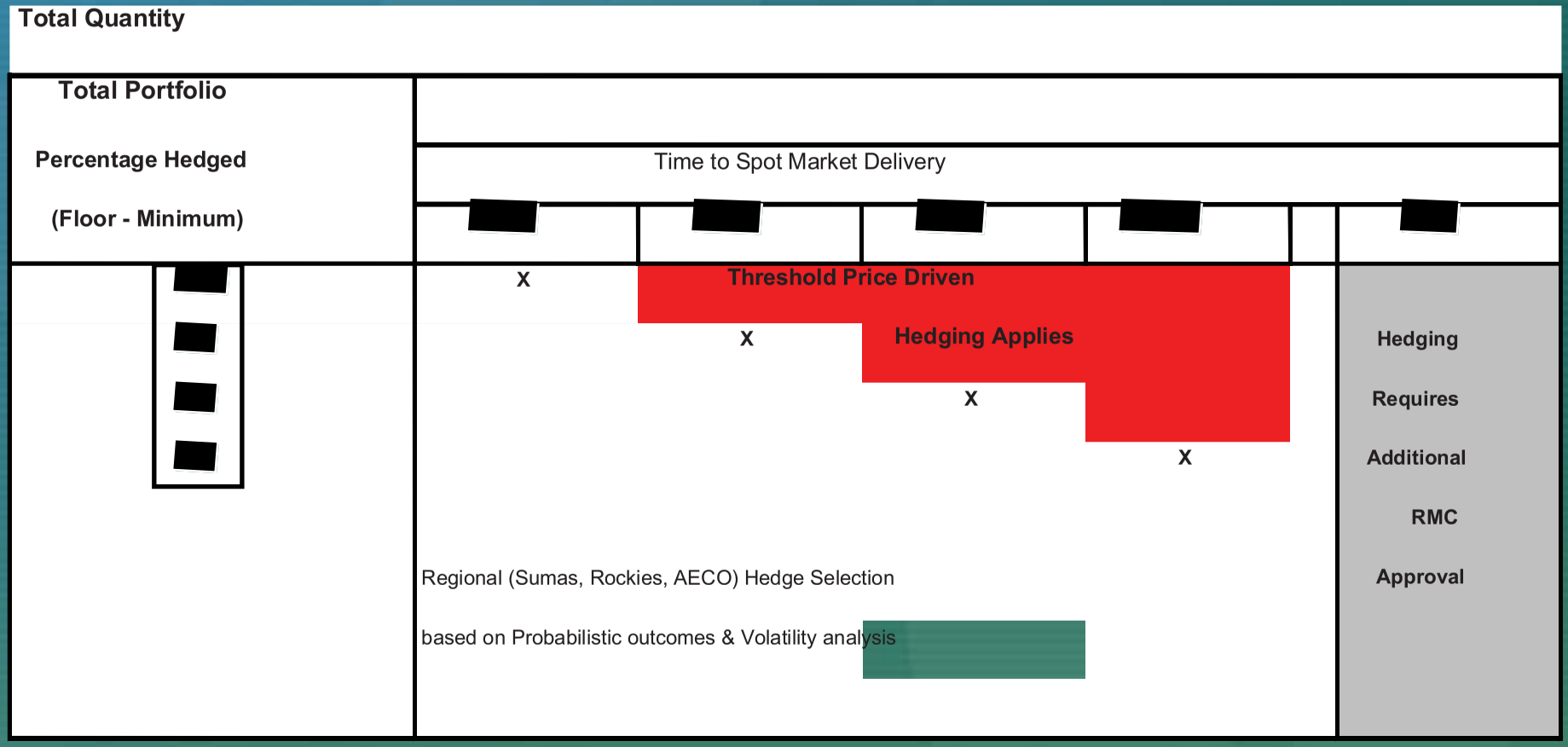
.... with timing discretion in [redacted] month intervals



- Timing is based on fundamental and sometimes technical analysis

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Proposed revisions to hedging strategies

- In 2006 GRC the WUTC approved establishing of dedicated line of credit for hedging which prompts us to review our existing hedging strategies
- We have previously benchmarked utility practices that support hedge tenor of [redacted]
- Conducted in-depth market research that shows customers favor retail rate stability
- Existing programmatic hedge strategy structure has performed well
- Proposal for discussion:
  - Power: (a) Extend tenor from [redacted]
    (b) Extend current maximum [redacted]
  - Core Gas: Extend from [redacted]

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Revised strategy retains many of the features of our current approach

- Programmatic design, meaning some amount of hedging must be done on a ratable, monthly basis
- Allows the volume of hedging to be adjusted as informed by market fundamentals
- Extends the tenor of hedges from [redacted]
- Revised approach differs by:
  - Extending the existing [redacted] exposure from [redacted] months for the power book.

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Illustrative Power Hedging Methodology: Quarterly Hedges

Pre-hedge spot exposure (MW)

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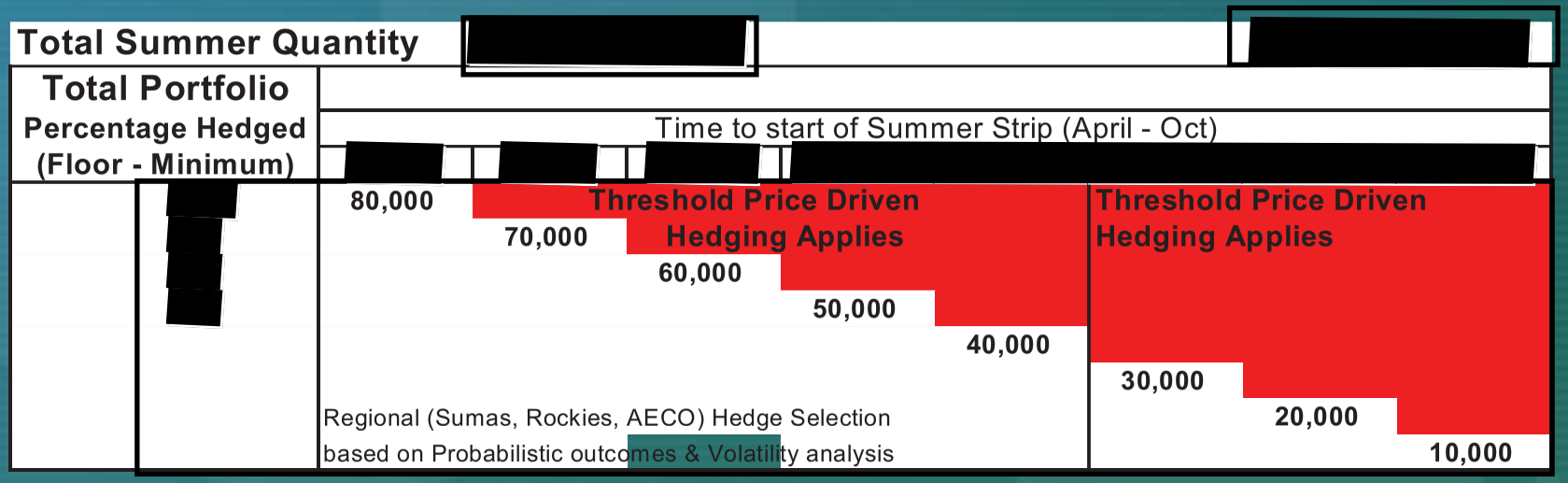
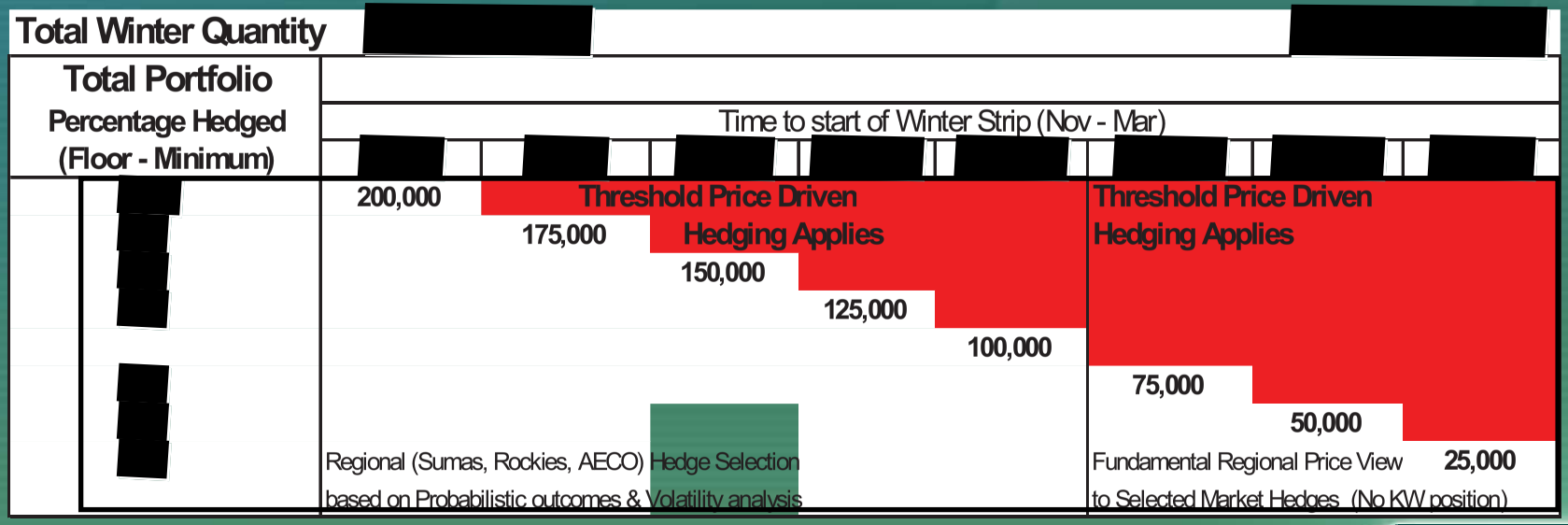
Revised Core Gas strategy would add [redacted] gas "seasons", beginning with the [redacted] season





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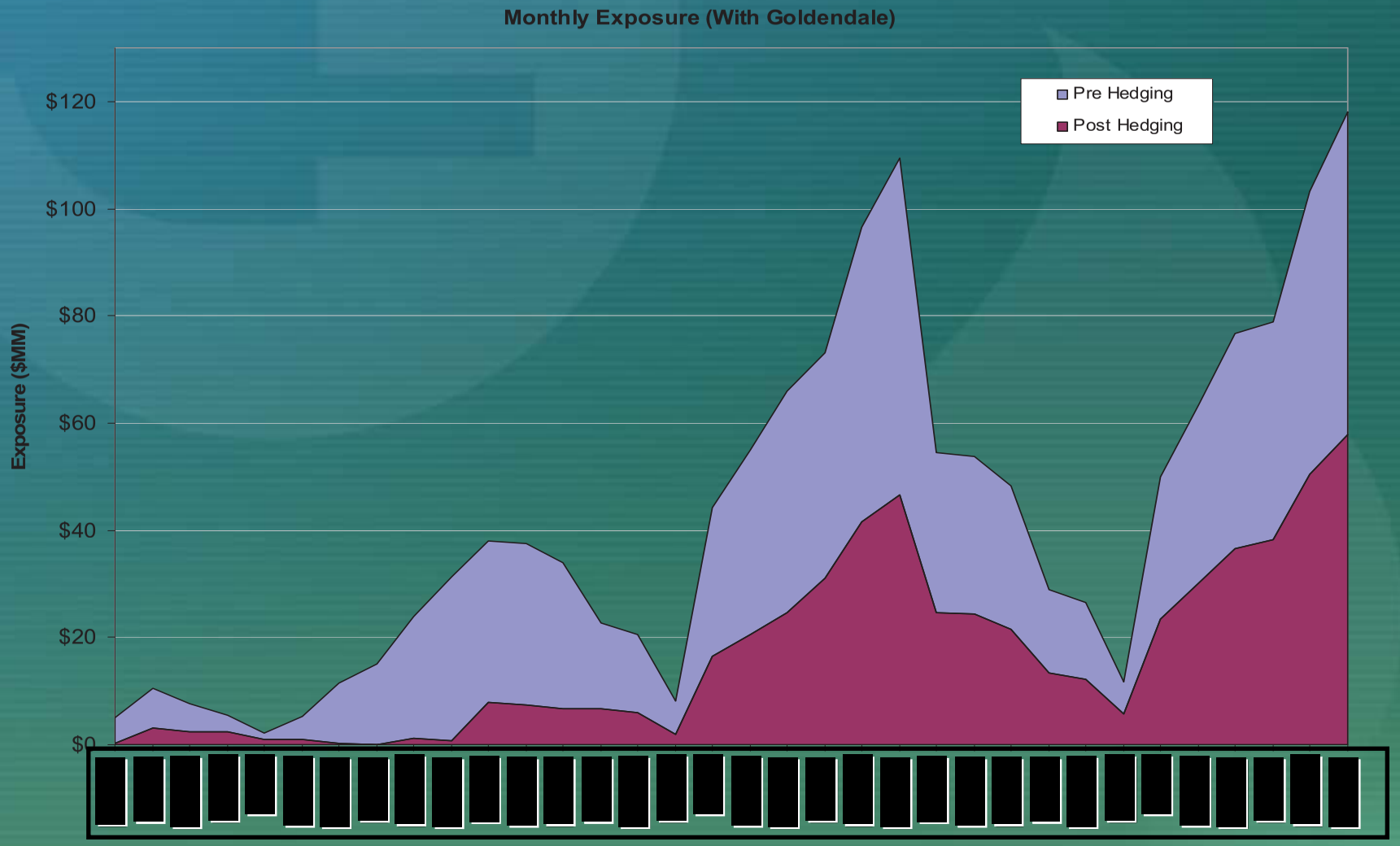
Power book exposure before and after revised hedging strategy



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APPENDIX:
Survey of Current Hedging Practices

External benchmarking of other utility practices support [redacted] tenor of hedging

- It can be concluded from the data collected from other regulated companies that the majority of hedging programs are conducted in the [redacted] forward periods. Almost none hedge beyond [redacted] forward.
  - According to two Risk Advisory surveys of 20 gas and electric utilities in North America, utility hedges are for less than [redacted]
  - According to the Western Energy Institute survey, 7 entities, including Avista Corp, engage in hedging of [redacted] and most have incorporated short-term programmatic hedging protocols.
- In general, those companies who hedged solely customer risk tended toward [redacted]

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Benchmarking: What we learned about the Industry

- Differences between gas & electric utilities:
  - Power hedged more than gas & for longer periods of time
  - Power often unwound hedges, while gas kept them in place
  - Annual budgets trigger hedging for electric, not gas utilities:
    - Most gas utilities are "full pass through"; electric less so
    - Cost control perception
  - All electric utilities surveyed measure credit exposure as A/R + MTM, not gas all gas utilities do

- Similarities between gas & electric utilities:
  - 70% of all utilities hedge to reduce volatility
  - Supply & Risk personnel
  - Hedging approaches: 50%+ programmatic, 27% discretionary
  - Creditworthiness is the most important counterparty characteristic

Findings of 6 leading utilities' Annual Reports

- Overall Impressions: Transparency
  - Explicit VaR calculations detail actual and potential losses
  - Describe volatilities used & how they are applied
  - Describe all types of derivatives & financial instruments
  - Attempt to show risk / reward profile of deregulated business
- Credit
  - Credit derivatives & default swaps are sometimes used
  - Detail of the impact of forward market moves & ratings downgrades
- FAS 133
  - Much time is devoted to the impact of these rules on earnings
- Other
  - AEP - Actively involved in the Committee of Chief Risk Officers

Benchmarking (Sources Reviewed)

- Consultants' Recommendations
  - Pace Global Consulting Group
  - National Economic Research Associates
- Annual Reports (10K) of Industry Leaders
  - Constellation
  - Duke
  - Entergy
  - AEP
  - Cinergy
  - XCEL
- Surveys & Benchmarking studies
  - KWI (survey of 7 companies)
  - Western Energy Institute (survey of 8 Western energy companies)
  - Risk Advisory (2 surveys of Canadian utilities & US utilities)