IRP Claims \$122M of Savings But Actually Delivers \$261M of Additional Costs



The Draft IRP considered several hypothetical portfolios to provide MLGW's customers with an energy provider other than TVA.

Although the Draft IRP in general used a valid methodology to determine potential future cost, there are specific assumptions related to TVA and considerations on cost, risk, reliability, and environment that are incorrect.

Areas Needing Correction

Start with the Draft IRP's Portfolio 9, the preferred option (IRP p.18)

Correct the IRP's projection of TVA's cost

Remove the additional costs projected by the IRP (TVA projects no base rate increases for a decade) and include savings available to MLGW as a long-term partner from self-generation flexibility.

-\$55M

Hypothetical Annual Savings

Change asset cost recovery to 20 years from 30 years



-\$150M

Incorporate realistic cost for asset construction

Draft IRP utilizes inaccurate cost estimates that could be exceeded by 20% to 50% (IRP p.72)

IRP Cost Estimate

Realistic Asset Construction Cost



The IRP calls for building 5 gas plants, large solar installations, and 3 major transmission lines. This is a difficult and complex undertaking and carries with it a great deal of execution risk. This incorporates realistic cost for asset construction based on industry experience.

-\$107M

Extend the construction timeline from 5 years to 8 years

Major transmission lines are the biggest risk to Siemens' proposed timeline

5 YEARS

8 VEARS

Acquiring the property rights from Tennessee and Arkansas landowners and obtaining the environmental approvals necessary to build power lines across the Mississippi River would likely take 5-7 years, followed by 1-2 years of construction.

Obtaining necessary environmental permits would be time-consuming, and completing the required upgrades to existing lines while maintaining service would take extensive planning and likely more than five years.

-\$50M

Build above the minimum reliability standard

To reliably meet peak demand and handle extreme weather and other risks, more investment in local generation would be needed. The transmission system proposed in the Draft IRP does not match the power quality requirements demanded by industrial customers, which helps to secure continued economic growth.

-\$21M

These corrections transform \$122M in annual savings into \$261M in extra annual costs to MLGW's customers. This translates to more than a 20% increase in electric bills.

Total Potential Cost

-\$261 M

Figures in 2018\$

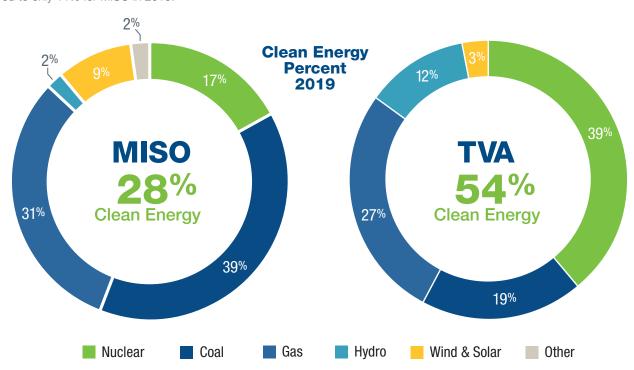
TVA's Energy is 60% Cleaner than IRP Preferred Option



TVA represents a significantly cleaner choice than the IRP preferred option that relies heavily on MISO.

TVA's energy supply almost twice as clean as MISO

In addition to TVA's clean energy percentage being almost twice that of MISO, TVA's renewable generation was 15% compared to only 11% for MISO in 2019.



TVA ON PATH FOR PERCENT CARBON REDUCTION FROM 2005 **LEVELS**

TVA carbon emissions to be 60% better than IRP preferred option

The Draft IRP overstates TVA carbon emissions and understates TVA renewable generation that includes large hydro. TVA is the Southeast leader in clean and renewable energy and is currently on a path to an 80% reduction in carbon emissions rate from 2005 baseline.

Siemens' analysis included some inaccurate assumptions about MLGW's future carbon emissions - too low for MISO and too high for TVA. With almost double the rate, MISO's carbon emission lags TVA's progress by 15 years.

IRP states carbon rate of 200 lbs/MWh for Portfolio 9. We believe the correct number is 4X that amount (~800 lbs/MWh) in 2025 on a comparable basis and remains more than 2X the estimated amounts over the planning period.



If the proposed IRP portfolio is used, MLGW's power supply would generate 11.2 billion pounds of carbon in 2025 alone.

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11.2 BILL **POUNDS OF CARBON IN 2025**