Chapter 10 - Appendix B

Candidate Resource Plan Dashboards

Ameren Missouri Candidate Resource Plan Summary

Plan Name: B1 - Meramec Continues As Is, Combined Cycle

Plan Summary

Meramec Status	Continues "As Is"
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Combined Cycle 2029
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$61,259
Ave. Rates (2011-2039) (¢/kwh)	$0.1247
Average ROE (2011-2039)	12.34%
PV Free Cash Flow (2011-2039) ($MM)	$2,747
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$5,095

2011-2030 Capital Requirements ($MM)

Environmental Equip.	2,249
Renewable Portfolio	1,249
New Supply Side	1,132
DSM Programs	600
Total Capital Need	5,230

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

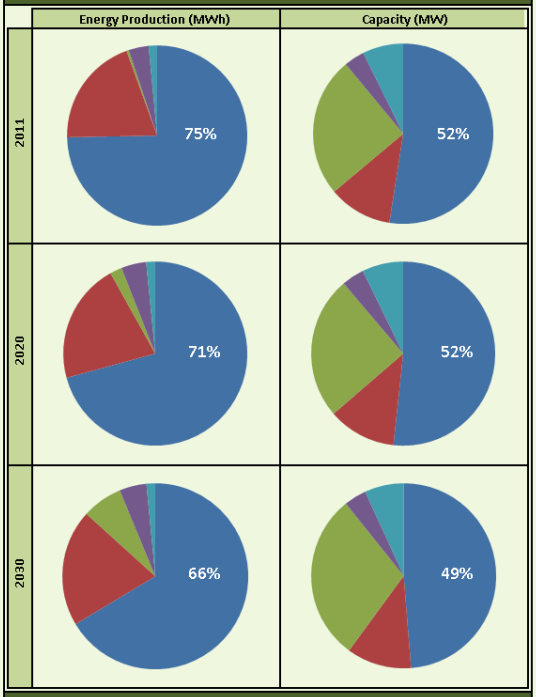
Long-term Debt	2,993
Common Equity	2,237
Operating Cash	-
Total Funding	5,230

(Note: excludes funding for ongoing investment)

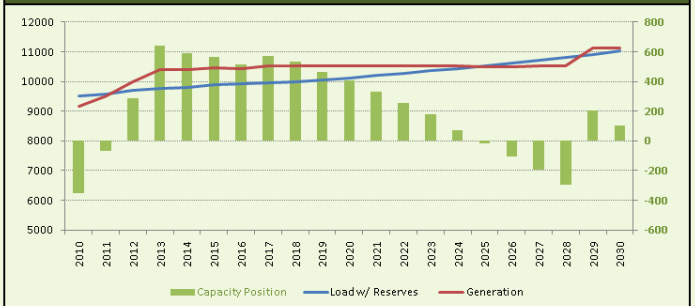
Key Issues and Risks

Continued exposure to coal (EPA regulations) and carbon.
Limited opportunity for change in resource mix.
Limited energy savings.
Increased exposure to natural gas price fluctuations.

Resource Mix

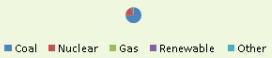


Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Key to Resource Mix Charts



Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Moderate" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: B2 - Meramec Continues As Is, Nuclear

Plan Summary

Meramec Status	Continues "As Is"
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Nuclear (30%) 2028
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$61,568
Ave. Rates (2011-2039) (¢/kwh)	$0.1253
Average ROE (2011-2039)	11.81%
PV Free Cash Flow (2011-2039) ($MM)	$2,566
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$28,403

2011-2030 Capital Requirements ($MM)

Environmental Equip.	2,249
Renewable Portfolio	1,249
New Supply Side	3,033
DSM Programs	600
Total Capital Need	7,131

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

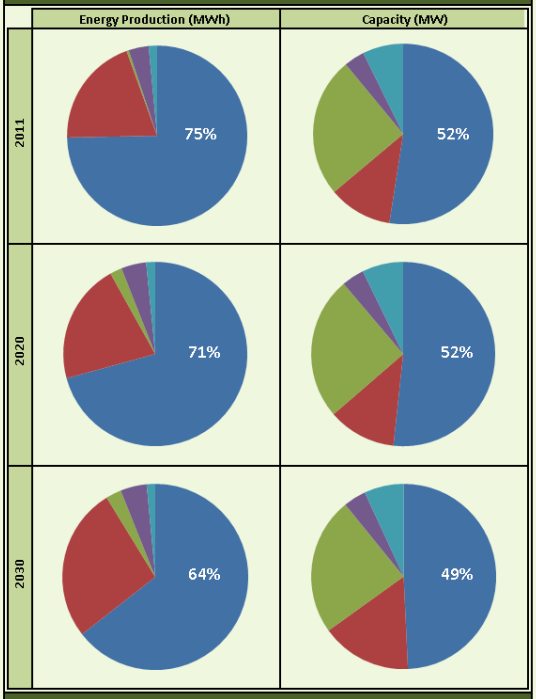
Long-term Debt	3,871
Common Equity	3,260
Operating Cash	-
Total Funding	7,131

(Note: excludes funding for ongoing investment)

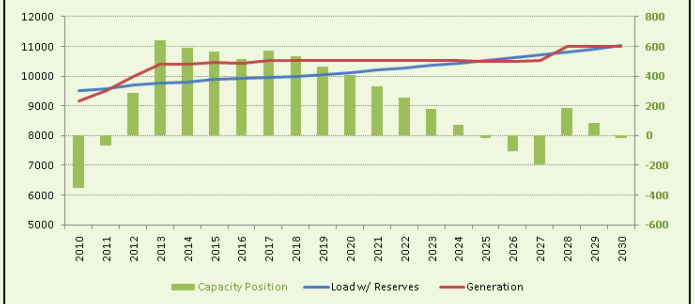
Key Issues and Risks

Continued exposure to coal (EPA regulations) and carbon.
Limited opportunity for change in resource mix.
Limited energy savings.
Greater exposure to capacity concentration if nuclear is a large single-unit configuration (mitigated if small modular).
Greater exposure to nuclear operations and regulation.
May require non-traditional rate treatment to support credit metrics during construction.

Resource Mix

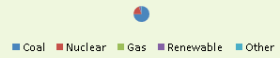


Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Key to Resource Mix Charts



Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Moderate" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: B3 - Meramec Continues As Is, Simple Cycle

Plan Summary

Meramec Status	Continues "As Is"
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Simple Cycle 2029
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$61,161
Ave. Rates (2011-2039) (¢/kwh)	$0.1245
Average ROE (2011-2039)	12.37%
PV Free Cash Flow (2011-2039) ($MM)	$2,796
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$4,749

2011-2030 Capital Requirements ($MM)

Environmental Equip.	2,249
Renewable Portfolio	1,249
New Supply Side	869
DSM Programs	600
Total Capital Need	4,967

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

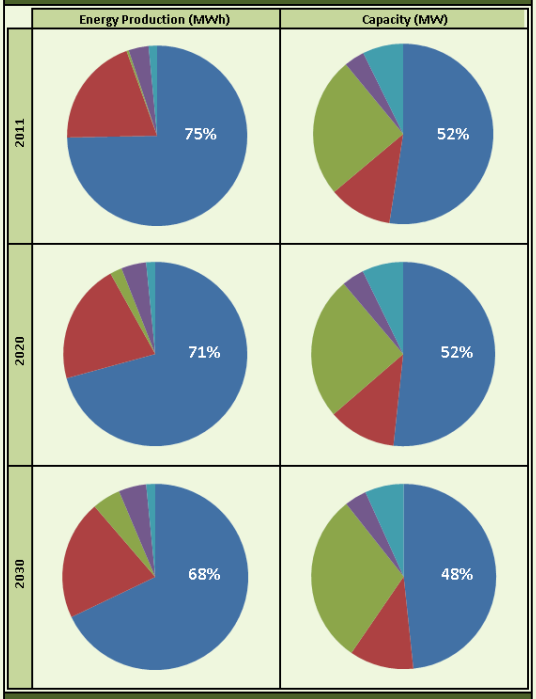
Long-term Debt	2,867
Common Equity	2,100
Operating Cash	-
Total Funding	4,967

(Note: excludes funding for ongoing investment)

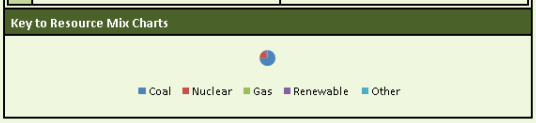
Key Issues and Risks

Continued exposure to coal (EPA regulations) and carbon.
Limited opportunity for change in resource mix.
Limited energy savings.
Increased exposure to natural gas price fluctuations.
Increased concentration of gas-fired peaking assets.

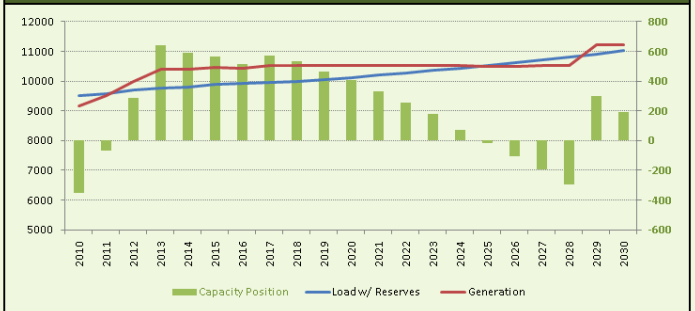
Resource Mix



Key to Resource Mix Charts



Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Moderate" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: B4 - Meramec Continues As Is, Wind with SC

Plan Summary

Meramec Status	Continues "As Is"
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Wind/SC in 2028
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$61,403
Ave. Rates (2011-2039) (¢/kwh)	$0.1250
Average ROE (2011-2039)	11.74%
PV Free Cash Flow (2011-2039) ($MM)	$2,661
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$4,662

2011-2030 Capital Requirements ($MM)

Environmental Equip.	2,249
Renewable Portfolio	1,249
New Supply Side	3,045
DSM Programs	600
Total Capital Need	7,143

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

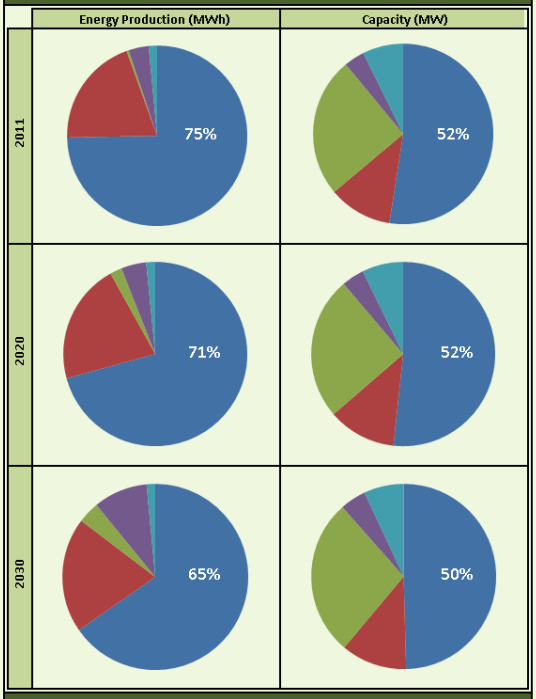
Long-term Debt	3,944
Common Equity	3,199
Operating Cash	-
Total Funding	7,143

(Note: excludes funding for ongoing investment)

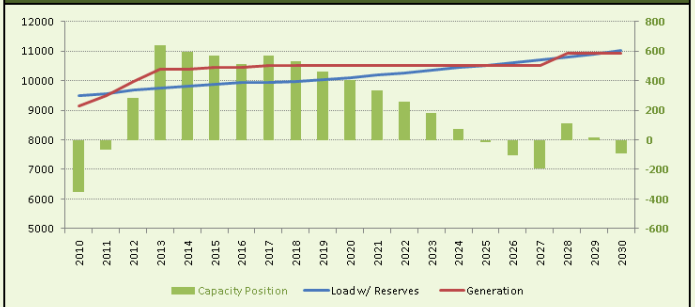
Key Issues and Risks

Continued exposure to coal (EPA regulations) and carbon.
Limited opportunity for change in resource mix.
Limited energy savings.
Increased exposure to natural gas price fluctuations.
Retains some exposure to carbon with new gas-fired resources.
Increased concentration of gas-fired peaking assets.
Exposure to changes in transmission integration cost allocation (currently assume 100% socialization of major integration costs through MISO).

Resource Mix

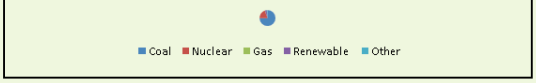


Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Key to Resource Mix Charts



Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Moderate" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: R0 - RAP DSM, Meramec Continues As-Is

Plan Summary

Meramec Status	Continues "As Is"
Noranda Status	Continues
DSM Portfolio	RAP
Supply Side 1	N/A
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$59,661
Ave. Rates (2011-2039) (¢/kwh)	$0.1249
Average ROE (2011-2039)	12.44%
PV Free Cash Flow (2011-2039) ($MM)	$3,460
Energy Savings (2011-2030) (GWh)	$41,092
Net Jobs (2011-2030) (FTE-years)	$11,991

2011-2030 Capital Requirements ($MM)

Environmental Equip.	2,249
Renewable Portfolio	1,264
New Supply Side	-
DSM Programs	1,700
Total Capital Need	5,213

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

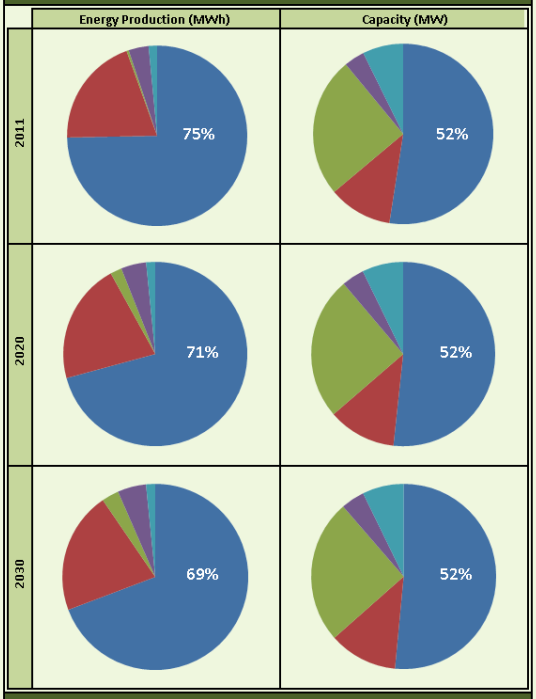
Long-term Debt	2,983
Common Equity	2,074
Operating Cash	156
Total Funding	5,213

(Note: excludes funding for ongoing investment)

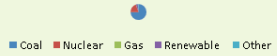
Key Issues and Risks

Exposure to lost fixed cost recovery due to reduction in sales due to energy efficiency between rate cases.
May require non-traditional rate treatment to support credit metrics during construction and installation of control equipment.
Exposure to lower-than-expected energy savings which could necessitate the implmentation of supply side options.

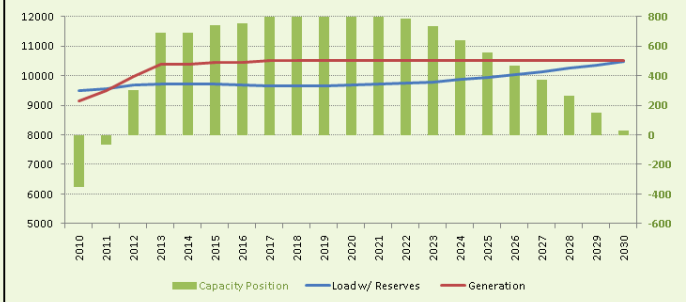
Resource Mix



Key to Resource Mix Charts



Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Moderate" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: R1 - RAP DSM, Meramec Controlled

Plan Summary

Meramec Status	Controlled by 1/1/16
Noranda Status	Continues
DSM Portfolio	RAP
Supply Side 1	N/A
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$62,867
Ave. Rates (2011-2039) (¢/kwh)	$0.1316
Average ROE (2011-2039)	11.56%
PV Free Cash Flow (2011-2039) ($MM)	$3,775
Energy Savings (2011-2030) (GWh)	$41,092
Net Jobs (2011-2030) (FTE-years)	$11,991

2011-2030 Capital Requirements ($MM)

Environmental Equip.	4,034
Renewable Portfolio	1,264
New Supply Side	-
DSM Programs	1,700
Total Capital Need	6,998

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

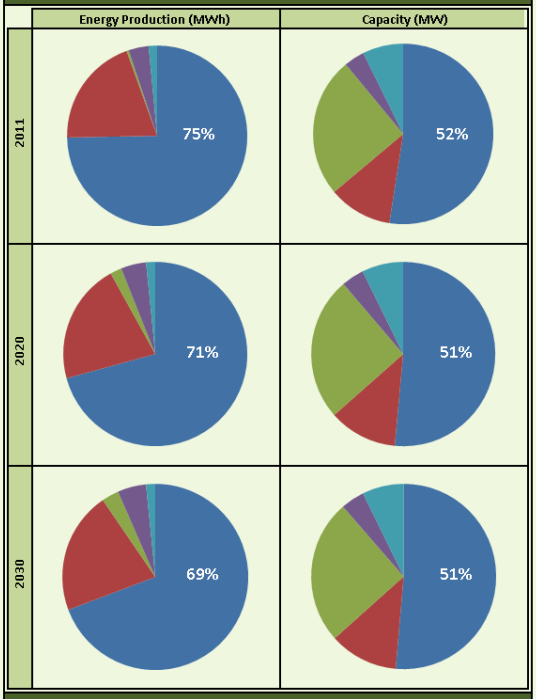
Long-term Debt	3,077
Common Equity	2,188
Operating Cash	1,733
Total Funding	6,998

(Note: excludes funding for ongoing investment)

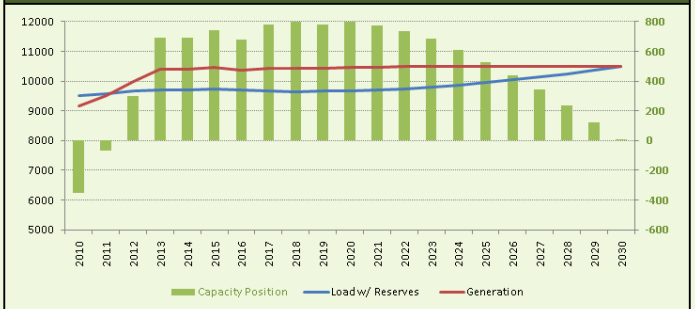
Key Issues and Risks

Exposure to lost fixed cost recovery due to reduction in sales due to energy efficiency between rate cases.
Exposure to potential stranded investment in control equipment should more stringent future requirements, including potential carbon regulation, lead to a decision to shut down the plant.
May require non-traditional rate treatment to support credit metrics during construction and installation of control equipment.
Exposure to lower-than-expected energy savings which could necessitate the implmentation of supply side options.

Resource Mix

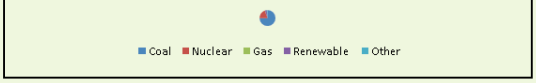


Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Key to Resource Mix Charts



Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Aggressive" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: R2 - RAP DSM, Meramec Gas Conversion

Plan Summary

Meramec Status	Gas Conversion 1/1/16
Noranda Status	Continues
DSM Portfolio	RAP
Supply Side 1	N/A
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$63,358
Ave. Rates (2011-2039) (¢/kwh)	$0.1326
Average ROE (2011-2039)	12.03%
PV Free Cash Flow (2011-2039) ($MM)	$3,740
Energy Savings (2011-2030) (GWh)	$41,092
Net Jobs (2011-2030) (FTE-years)	$11,991

2011-2030 Capital Requirements ($MM)

Environmental Equip.	3,110
Renewable Portfolio	1,264
New Supply Side	-
DSM Programs	1,700
Total Capital Need	6,074

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

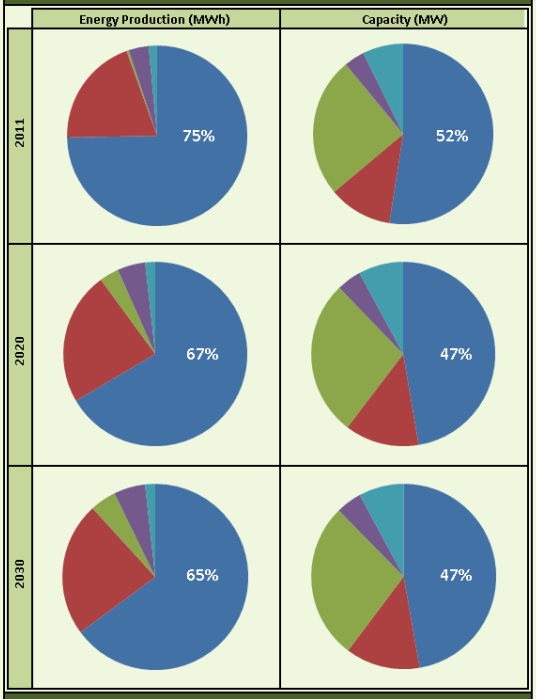
Long-term Debt	2,874
Common Equity	1,938
Operating Cash	1,262
Total Funding	6,074

(Note: excludes funding for ongoing investment)

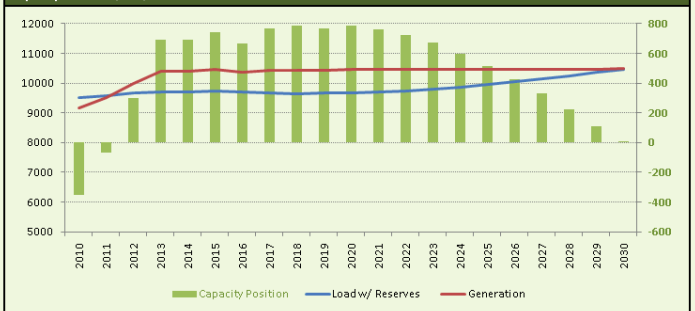
Key Issues and Risks

Exposure to lost fixed cost recovery due to reduction in sales due to energy efficiency between rate cases.
Gas conversion will result in preservation of capacity, but will likely yield very little replacement energy based on the anticipated high heat rates of the converted units.
Exposure to lower-than-expected energy savings which could necessitate the implmentation of supply side options.

Resource Mix

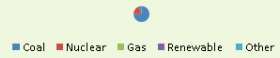


Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Key to Resource Mix Charts



Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Aggressive" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: R3 - RAP DSM, Meramec Retired

Plan Summary

Meramec Status	Retired 12/31/2015
Noranda Status	Continues
DSM Portfolio	RAP
Supply Side 1	N/A
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$63,101
Ave. Rates (2011-2039) (¢/kwh)	$0.1321
Average ROE (2011-2039)	11.95%
PV Free Cash Flow (2011-2039) ($MM)	$4,084
Energy Savings (2011-2030) (GWh)	$41,092
Net Jobs (2011-2030) (FTE-years)	$8,496

2011-2030 Capital Requirements ($MM)

Environmental Equip.	3,110
Renewable Portfolio	1,264
New Supply Side	-
DSM Programs	2,220
Total Capital Need	6,594

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

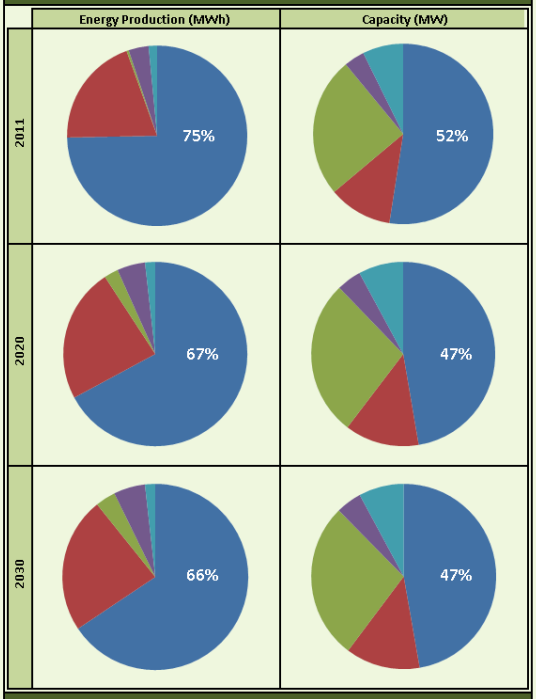
Long-term Debt	2,647
Common Equity	1,780
Operating Cash	2,167
Total Funding	6,594

(Note: excludes funding for ongoing investment)

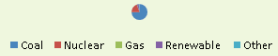
Key Issues and Risks

Exposure to lost fixed cost recovery due to reduction in sales due to energy efficiency between rate cases.
Increased reliance on demand response to replace capacity lost to retirement.
Exposure to lower-than-expected energy savings which could necessitate the implmentation of supply side options.

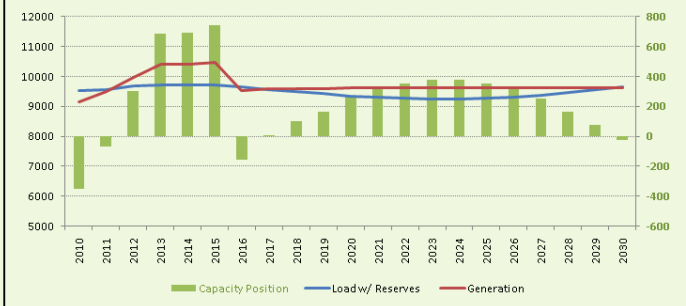
Resource Mix



Key to Resource Mix Charts



Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Aggressive" environmental regulation. Demand response resources accelerated as need is advanced by retirement of Meramec.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: C1 - Combined Cycle, Meramec Controlled

Plan Summary

Meramec Status	Controlled by 1/1/16
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Combined Cycle 2028
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$64,403
Ave. Rates (2011-2039) (¢/kwh)	$0.1311
Average ROE (2011-2039)	11.90%
PV Free Cash Flow (2011-2039) ($MM)	$2,932
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$5,125

2011-2030 Capital Requirements ($MM)

Environmental Equip.	4,034
Renewable Portfolio	1,249
New Supply Side	1,099
DSM Programs	600
Total Capital Need	6,982

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

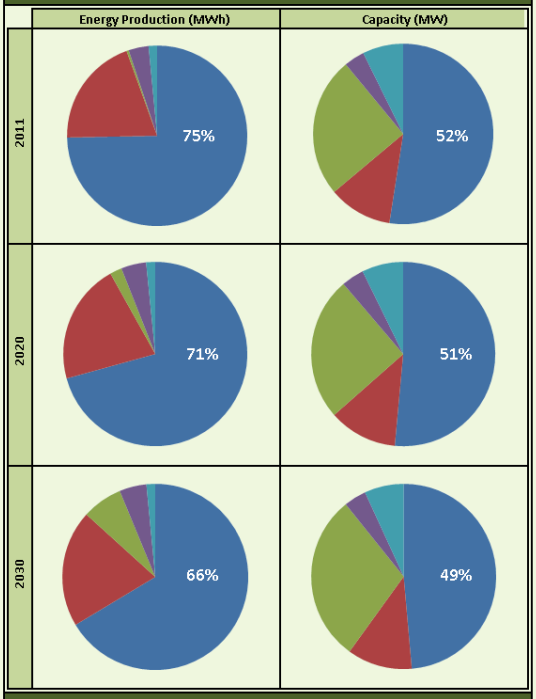
Long-term Debt	3,615
Common Equity	2,726
Operating Cash	641
Total Funding	6,982

(Note: excludes funding for ongoing investment)

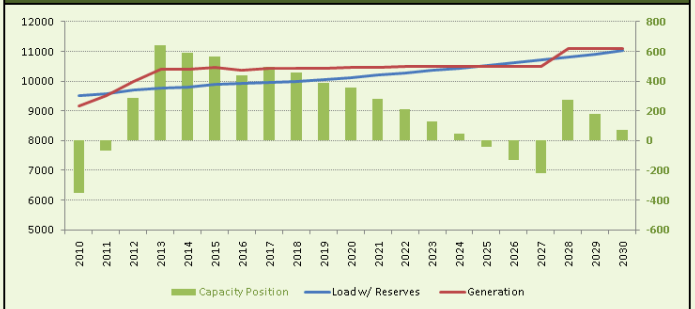
Key Issues and Risks

Exposure to potential stranded investment in control equipment should more stringent future requirements, including potential carbon regulation, lead to a decision to shut down the plant.
May require non-traditional rate treatment to support credit metrics during construction and installation of control equipment.
Increased exposure to natural gas price fluctuations.
Retains some exposure to carbon with new gas-fired resource.
Limited energy savings.

Resource Mix

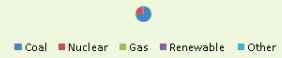


Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Key to Resource Mix Charts



Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Aggressive" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: C2 - Combined Cycle, Meramec Gas Conversion

Plan Summary

Meramec Status	Gas Conversion 2016
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Combined Cycle 2028
Supply Side 2	N/A
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$64,875
Ave. Rates (2011-2039) (¢/kwh)	$0.1320
Average ROE (2011-2039)	12.15%
PV Free Cash Flow (2011-2039) ($MM)	$2,881
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$5,125

2011-2030 Capital Requirements ($MM)

Environmental Equip.	3,110
Renewable Portfolio	1,249
New Supply Side	1,099
DSM Programs	600
Total Capital Need	6,058

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

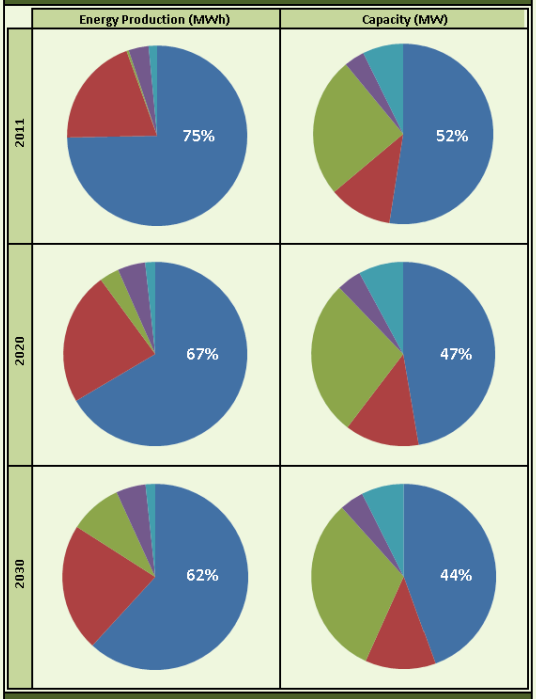
Long-term Debt	3,406
Common Equity	2,476
Operating Cash	176
Total Funding	6,058

(Note: excludes funding for ongoing investment)

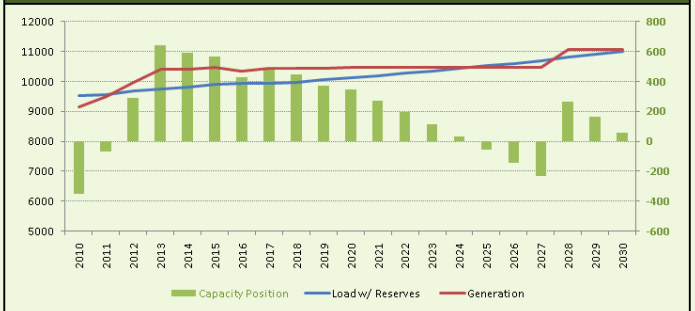
Key Issues and Risks

Gas conversion will result in preservation of capacity, but will likely yield very little replacement energy based on the anticipated high heat rates of the converted units.
Increased exposure to natural gas price fluctuations.
Retains some exposure to carbon with new gas-fired resource.
Limited energy savings.

Resource Mix

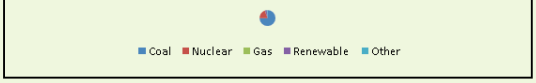


Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Key to Resource Mix Charts



Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Aggressive" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: C3 - Combined Cycle, Meramec Retired

Plan Summary

Meramec Status	Retired 12/31/2015
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Combined Cycle 2016
Supply Side 2	Combined Cycle 2026
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$65,356
Ave. Rates (2011-2039) (¢/kwh)	$0.1330
Average ROE (2011-2039)	11.80%
PV Free Cash Flow (2011-2039) ($MM)	$2,995
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$3,652

2011-2030 Capital Requirements ($MM)

Environmental Equip.	3,110
Renewable Portfolio	1,249
New Supply Side	1,808
DSM Programs	600
Total Capital Need	6,767

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

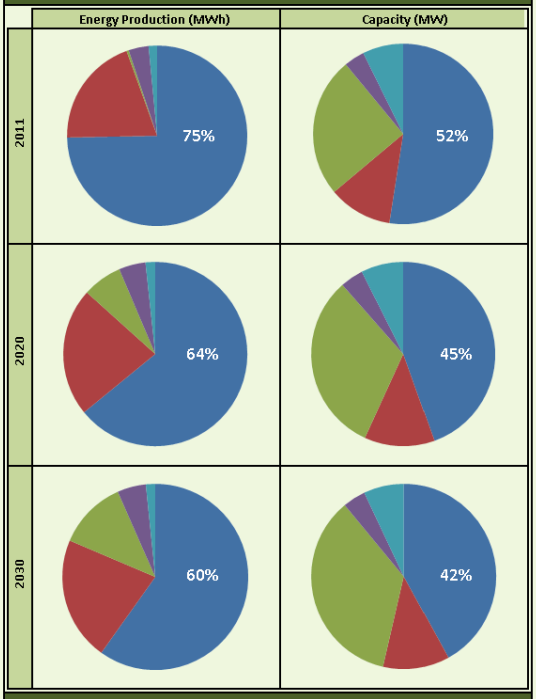
Long-term Debt	3,214
Common Equity	2,345
Operating Cash	1,207
Total Funding	6,767

(Note: excludes funding for ongoing investment)

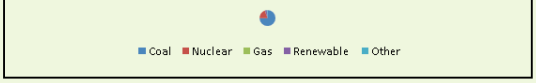
Key Issues and Risks

Increased exposure to natural gas price fluctuations.
Retains significant exposure to carbon with new gas-fired resource.
Limited energy savings.

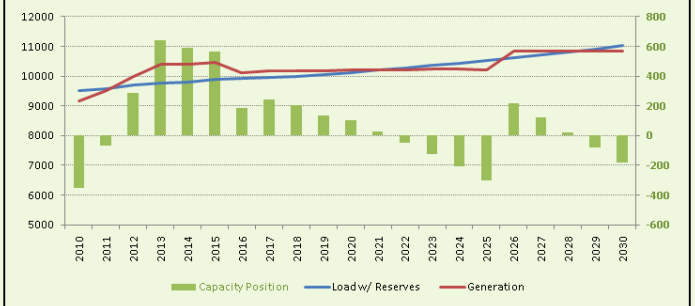
Resource Mix



Key to Resource Mix Charts



Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Aggressive" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: H1 - Meramec Retired, CC, Nuclear 30%

Plan Summary

Meramec Status	Retired 12/31/2015
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Combined Cycle 2016
Supply Side 2	Nuclear (30%) 2025
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$65,596
Ave. Rates (2011-2039) (¢/kwh)	$0.1334
Average ROE (2011-2039)	11.15%
PV Free Cash Flow (2011-2039) ($MM)	$2,725
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$28,070

2011-2030 Capital Requirements ($MM)

Environmental Equip.	3,110
Renewable Portfolio	1,249
New Supply Side	3,547
DSM Programs	600
Total Capital Need	8,506

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

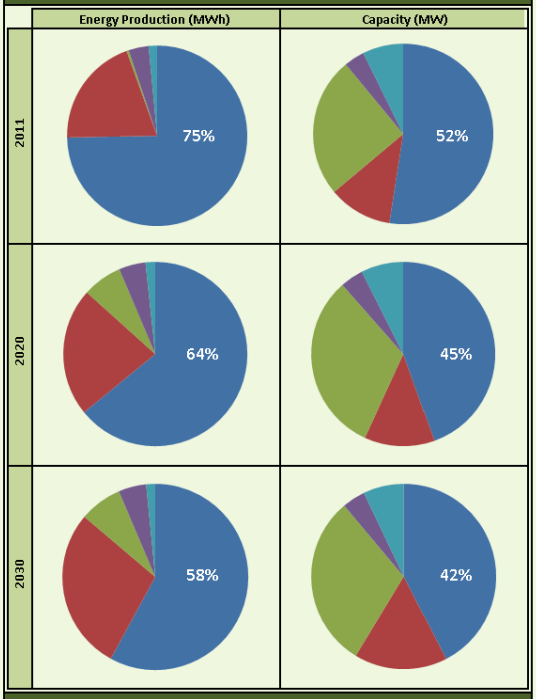
Long-term Debt	4,194
Common Equity	3,479
Operating Cash	833
Total Funding	8,506

(Note: excludes funding for ongoing investment)

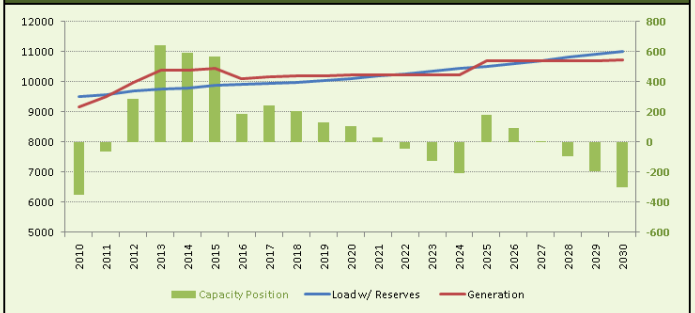
Key Issues and Risks

Increased exposure to natural gas price fluctuations.
Retains some exposure to carbon with new gas-fired resource.
Limited energy savings.
Greater exposure to capacity concentration if nuclear is a large single-unit configuration (mitigated if small modular).
Greater exposure to nuclear operations and regulation.
May require non-traditional rate treatment to support credit metrics during construction.

Resource Mix

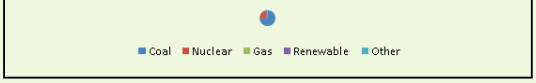


Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Key to Resource Mix Charts



Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Aggressive" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: H2 - Meramec Retired, CC, Simple Cycle

Plan Summary

Meramec Status	Retired 12/31/2015
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Combined Cycle 2016
Supply Side 2	Simple Cycle 2026
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$65,198
Ave. Rates (2011-2039) (¢/kwh)	$0.1327
Average ROE (2011-2039)	11.73%
PV Free Cash Flow (2011-2039) ($MM)	$3,020
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$3,321

2011-2030 Capital Requirements ($MM)

Environmental Equip.	3,110
Renewable Portfolio	1,249
New Supply Side	1,566
DSM Programs	600
Total Capital Need	6,525

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

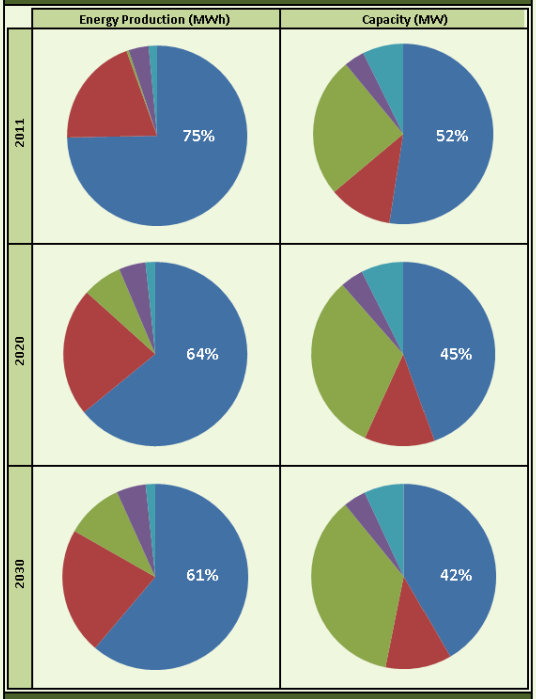
Long-term Debt	3,093
Common Equity	2,209
Operating Cash	1,223
Total Funding	6,525

(Note: excludes funding for ongoing investment)

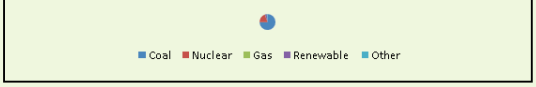
Key Issues and Risks

Increased exposure to natural gas price fluctuations.
Retains some exposure to carbon with new gas-fired resources.
Limited energy savings.
Increased concentration of gas-fired peaking assets.

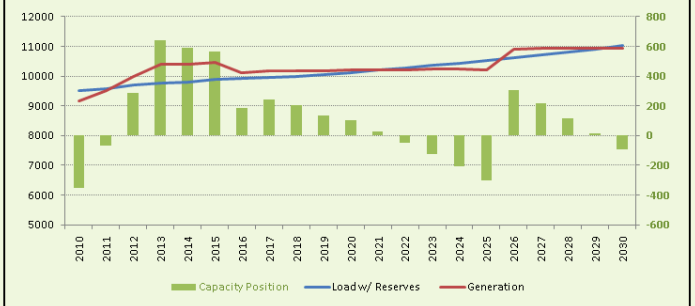
Resource Mix



Key to Resource Mix Charts



Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Aggressive" environmental regulation.

Ameren Missouri Candidate Resource Plan Summary

Plan Name: H3 - Meramec Retired, CC, Wind w/ Simple Cycle

Plan Summary

Meramec Status	Retired 12/31/2015
Noranda Status	Continues
DSM Portfolio	Low Risk
Supply Side 1	Combined Cycle 2016
Supply Side 2	Wind/SC in 2024
Renewable Portfolio	Missouri Prop. C

Key Measures

PVRR (2011-2039) ($MM)	$65,420
Ave. Rates (2011-2039) (¢/kwh)	$0.1331
Average ROE (2011-2039)	11.01%
PV Free Cash Flow (2011-2039) ($MM)	$2,826
Energy Savings (2011-2030) (GWh)	$11,875
Net Jobs (2011-2030) (FTE-years)	$3,345

2011-2030 Capital Requirements ($MM)

Environmental Equip.	3,110
Renewable Portfolio	1,249
New Supply Side	3,477
DSM Programs	600
Total Capital Need	8,436

(Note: excludes other ongoing investment)

2011-2030 Capital Funding Sources ($MM)

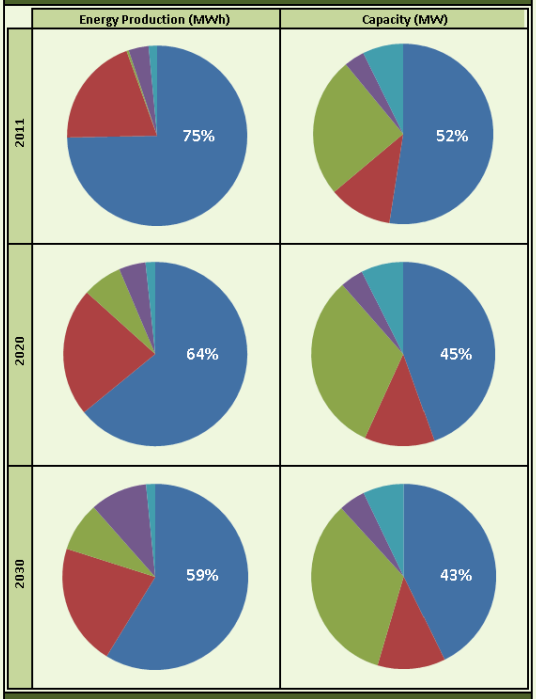
Long-term Debt	3,316
Common Equity	2,468
Operating Cash	2,652
Total Funding	8,436

(Note: excludes funding for ongoing investment)

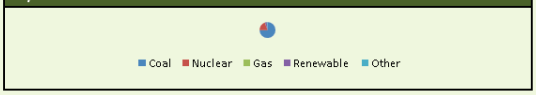
Key Issues and Risks

Increased exposure to natural gas price fluctuations.
Retains some exposure to carbon with new gas-fired resources.
Limited energy savings.
Increased concentration of gas-fired peaking assets.
Exposure to changes in transmission integration cost allocation (currently assume 100% socialization of major integration costs through MISO).

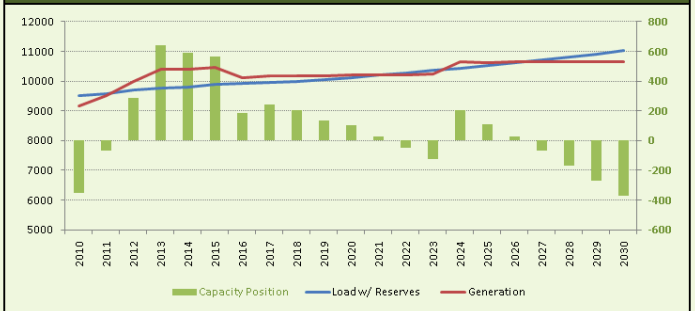
Resource Mix



Key to Resource Mix Charts



Capacity Position (MW)



Note: left-hand scale corresponds to Load and Generation; right-hand scale corresponds to Net Position

Other Notes

Plan reflects continuation of existing regulation for cost recovery of utility investments in both supply side and demand side resources and "Aggressive" environmental regulation. Wind resources are coupled with simple cycle CTG's for capacity as wind receives only 8% credit of rated capacity for MISO resource adequacy purposes.