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b) Information for the top ten most costly additions

1) WO number: 24440 – AIC Electric 2013 Vehicle Purchases

a) Description of addition:
Purchase and replace company-owned vehicles and construction and operating equipment that are approaching the end of their useful life. The age of vehicles is a primary factor for replacement, as well as other factors including mileage, hours of use, and maintenance history. The replacement forecast of units includes reducing the number of units that are outside of the unit life cycle parameters, over the next 5-7 years.

b) Date project started: January 2013

c) Completion date: December 2013

d) Total project Completion cost: $13,304,784

e) Reason for the project:
There are company owned vehicles and construction and operating equipment that are approaching or exceeded their identified life cycle and to optimize the life cycle of AIC's electric fleet. In 2012 AIC spent approximately $8.5M to replace at or out of lifecycle vehicles. AIC life cycle parameters are identified and utilized to approximate the period of time the asset will provide optimal value. The age of vehicles is a primary factor for replacement, as well as other factors including mileage, hours of use, and maintenance history. AIC does compare vehicle and equipment lifecycles to industry peers as part of validating the life cycle approach. The replacement forecast of vehicles and equipment includes replacing additional units that are outside of the unit life cycle parameters, over a five to seven year period.

f) Alternatives considered and the reasons for rejecting each:
Continue to maintain existing vehicles. As vehicles become older, they will require more maintenance resulting in additional costs. Eventually the major components of a vehicle, such as the engine and transmission, will fail. Eliminating replacements and maintaining until failure would cause maintenance cost to increase. Also, the risk of a vehicle experiencing an unexpected breakdown increases as the vehicle gets older, potentially affecting emergency and customer service response capability.

g) List of reports relied upon by management when deciding to pursue the rate base addition:
24440 – AIC Lifecycle – Electric
24440 – AIC Historical Vehicle Maintenance Costs

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2) WO number: 28211 – Illinois Network Redesign – Phase III

a) Description of addition:
This project will support AIC's communication capability across various technologies. Phase 3 (of a 4-phase overall project) includes the approximately 30 sites in the eastern and southern portions of the Company's service territory.

b) Date project started: January 2013

c) Completion date: December 2013

d) Completion Cost: $11,903,924

e) Reason for the project:
To provide unified network across Ameren Illinois to support a more reliable and flexible communication capability. Supporting systems include: Supervisory Control and Data Acquisition (SCADA), Voice and Data. The project will replace aging communications backhaul technologies which have passed manufacturer support. The entire project is being delivered in four phases (based on geographical locations).

f) Alternatives considered and the reasons for rejecting each:
Alternatives analysis reviewed four sourcing strategies in 2008/2009
Option 1 – Fully outsourced/leased
Option 2 – Hybrid ownership structure
Option 3 – Ameren owned
Option 4 – Obsolete equipment replacement
Ameren elected Option 4 – Obsolete equipment replacement and costs were budgeted over 5 years, was the most economical choice.

g) List of reports relied upon by management when deciding to pursue the rate base addition:
28211 – Project Update Jan 2011

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3) WO number: 26568 – Fountain-Waterloo 34/69 kV Line

a) Description of addition:
This project is to build two new switching stations and tie 34.5 kV lines, L3341 and L3338 together. AIC will build a 4.5 mile line between the proposed Waterloo and Fountain Switching stations along HH Road. The line should be built to 69 kV specifications, but will be operated at 34.5 kV. It also encompasses an additional 1.7 mile of double-circuit line from Fountain SW station to the existing L3341A. There is an additional one-mile double-circuit line that ties the Waterloo SW station into L3338.

b) Date project started: January 2013

c) Total project Completion date: December 2013

d) Total project Completion cost: $5,421,040

e) Reason for the project:
The Waterloo and Fountain SW Stations will sectionalize two long substransmission lines (L3338 and L3341) and will provide a more reliable service to several distribution substations. The proposed line from Waterloo to Fountain is needed to provide additional capacity to meet the load growth in the area. Otherwise, for outage of L3338 between Valmeyer and Waterloo Muni, approximately 5 MW of load would have to be dropped to meet the minimum voltage requirements.

f) Alternatives considered and the reasons for rejecting each:
1. 2nd 34KV Bulk sub at Valmeyer and Fountain-Waterloo 34KV line – would require 2nd 138 kV line into Valmeyer
2. 34 kV bulk sub at Fountain and Fountain-Waterloo 34 kV line – 138 kV ring bus would be in flood plain
3. 34 kV bulk sub at 138 kV tap and Fountain-Waterloo 34 kV line – bulk supply sub and 138 kV ring bus would be in flood plain
4. 2nd 34 kV bulk transformer at Valmeyer and double-circuit Valmeyer-Waterloo line – Double-circuit Valmeyer-Waterloo line
5. Fountain –Water 34 kV line only – limited capacity gained
6. 69 kV bulk sub at Fountain and replace Valmeyer with 69 kV bulk and 34&69 kV Fountain-Waterloo line – Valmeyer line would be on a radial line and the 138 kV ring bus would be in the flood plain
7. 69 kV bulk sub at 138 kV tap and replace Valmeyer with 69 kV bulk and 34&69 kV Fountain-Waterloo line – Valmeyer line would be on a radial line and the bulk supply sub 138 kV ring bus would be in the flood plain
8. 69KV Bulk Sub at Fountain and 69KV Bulk at Valmeyer and Fountain-Waterloo 69KV line and 34&69KV Valmeyer-Waterloo – 138 kV ring bus in flood plain and highest cost

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9. 69KV Bulk Sub at Fountain and 69KV Bulk at 138 kV tap and Fountain-Waterloo 69KV line and 34&69KV Valmeyer-Waterloo – Valmeyer sub would be on a radial line and the bulk supply sub and 138 kV ring bus would be in the flood plain
10. 138 kV all the way to Waterloo and bulk sub at Waterloo – high cost and this alone would not gain comparable capacity considering other alternatives

g) List of reports relied upon by management when deciding to pursue the rate base addition:

26568 – Project Notification Waterloo-Fountain Line
26568 – Quanta Study for Waterloo Area Planning – final 10_3_09

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4) WO number: 28873 – Quincy East – Upgrade Bank #5

a) Description of addition:

Replace the existing three single-phase 138/34.5 kV transformers and 34.5 kV regulating transformer with a 3-phase, 138/34.5 kV, 112 MVA top rated transformer with LTC. The scope includes replacing 138 kV switch 1605B with at least a 1200 A breaker and upgrading the 34.5 kV conductor.

b) Date project started: February 2013

c) Total project Completion date: June 2013

d) Total project Completion cost: $3,732,601

e) Reason for the project:

Avoid overload during first contingency conditions. During first contingency (loss of Transformer Bank #3), Transformer #5 is expected to be loaded to 90.2 MVA or 180% of the summer emergency rating of 50 MVA.

f) Alternatives considered and the reasons for rejecting each:

Alternatives considered included building a new bulk substation in the Quincy area at Marblehead North, installing a second bulk transformer at 3rd & Jefferson Substation, and power factor correction in the Quincy area. Each alternative was more expensive and/or didn't fully address the system needs.

g) List of reports relied upon by management when deciding to pursue the rate base addition:

28873 – Project Notification – Quincy East – Upgrade Bank 5

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c) Information for the next 20 most expensive additions to rate base

N/A