DPU Exhibit 3.4 Dir-RevReq
City Creek Investment
Appraisal
21 Pages

INVESTMENT APPRAISAL *2007-2012*

An Investment Appraisal for *City Creek Center, New 28 MW development for Property Reserve Inc*

Part 1 – Executive Report & Authorization

Part 2 – Detailed Technical Assessment

Project Author: Steven R. Jensen

Project Sponsor: Doug Bennion

An Investment Appraisal for *City Creek Center, New 28 MW development for Property Reserve Inc*

Part 1 – Executive Report & Authorization

Pacific Power / Rocky Mountain Power

1. Executive Summary

Decision Required

Approve funding for City Creek Center project with a May 1, 2012 in-service date. This project has a total cost of $36.7M which includes $4.37M of contingency.

Project Summary

Property Reserve Inc. (PRI) is developing City Creek Center, which is a development in down town Salt Lake City that encompasses two and one half city blocks. Current load sheets from the developer indicate a City Creek Center load of 27.5 MVA. The initial loads for the project are expected in 2009 with full loading requirements in 2012.

The developed area also includes several building facilities that will remain unchanged including some facilities needing to be fed from the new power upgrades installed for City Creek Center. Non-City Creek Center loads that remain are approximately 14.3MVA.

The total demand load anticipated for City Creek Center facilities on the reconstructed 2.5 city blocks (including 4.7 MW of 7.2 kV conversion) is 32.2 MVA.

The developer has already begun demolition, design, and construction. Rocky Mountain Power is working with the developer to accommodate the initial temporary power, relocations, and removal activities.

Much of the existing distribution facility locations, conflict with the new development and require demolition. Much of the existing distribution duct systems are comprised of small and obsolete "orange-berg" duct that will not allow re-installation of new conductor. These issues require new duct banks and vaults adjacent to the development to feed the new City Creek Center facilities. Existing facilities are being utilized where practical.

Master planning studies (including KEMA) and loading requests have also projected that loadings in the downtown, Morton Court to Third West Substation vicinities will likely grow an additional 81 to 131 MVA by or before 2017.

(Note: The InfraSource/KEMA study was commissioned to study the near and long term impacts of growth and reliability of the underground distribution system in downtown Salt Lake City.)

Proposed Scope Summary

- Convert existing Third West 46/12.5 kV substation to 138/12.5 kV substation including 4-138 kV circuit breakers, with two 50 MVA transformers including switchgear, and four underground 12.5 kV circuits with duct banks extending to City Creek Center.
- Convert the existing Gadsby -Third West 46 kV line and Jordan-Third West 46 kV line to 138 kV including addition of 138 kV line positions at Gadsby, Jordan, and Third West substations.
- Add 138/12.5 kV 40MVA transformer at Morton Court including switchgear, 3-138 kV circuit breakers, two underground 12.5 kV circuits with duct banks extending to City Creek Center, and relocate an existing 12.5 kV circuit to new

switchgear.

- Install upgraded 12.5 kV underground electrical, duct, and vault system adjacent to the City Creek Center development to be fed from the new facilities at Morton Court and Third West Substations. The developer will be responsible to install the duct banks and vaults adjacent to City Creek Center.
- Convert approximately 4.7 MVA of existing 7.2 kV load on the City Creek Center blocks as betterment while the sidewalks and streets are disturbed.

Project Issues

- In 2007, at 3rd West Substation and under N-1 conditions, bank #6 is loaded to 9.9 MVA with a 22.4 MVA capacity and bank #7 is loaded to 22.9 MVA out of a 22.4 MVA capacity.
- In 2007, at Morton Court Substation and under N-1 conditions, bank #1 is loaded to 27.0 MVA out of a 28 MVA capacity.
- In 2007, at Brunswick Substation and under N-1 conditions, bank #3 is loaded to 15.4 MVA out of 22.4 MVA capacity.
- As demonstrated by the preceding points, there is 20 MVA of existing available capacity on the substations adjacent to the City Creek Center development. Existing substation and distribution electrical facilities will not accommodate the 32.2 MVA of new load plus provide capacity to back it up.

1.1 Benefits

- The project will provide reliable capacity to satisfy the new loads added by the new City Creek Center development.
- At Third West Substation, bank #6 will be loaded to 28.8 MVA out of 50 MVA under N-1 conditions.
- At Third West Substation, bank #7 will be loaded to 32.8 MVA out of 50 MVA under N-1 conditions.
- At Morton Court Substation, bank #1 will be loaded to 21.0 MVA out of 28 MVA under N-1 conditions.
- At Morton Court Substation, bank #2 will be loaded to 17.1 MVA out of 40 MVA under N-1 conditions.

Additional benefits

- The project will act as a catalyst to begin the upgrade of all of the aging downtown electrical facilities as suggested in the downtown master plan and KEMA study.
- The project will upgrade non-standard 7.2 kV distribution facilities in portions of downtown Salt Lake City as recommended in the master plan and KEMA study.

1.2 Risks

- The developer is proceeding on an aggressive design-build/fast track process to construct the new development. Satisfying the developer's needs for temporary power, relocations during demolition, accommodations, installation of facilities while the public ways are disturbed, and providing overall initial and final power to the development is challenging company processes and resources.
- Internal company design resources are constrained.
- The new required underground facilities require extensive coordination with existing underground facilities with extremely limited space in the public and private ways.
- Non-standard 50 MVA transformers and larger switchgear are being used for the first time which could challenge the engineering and delivery schedule.
- Third West Substation may require additional property for expansion with the associated permitting requirements from the city. Condemnation proceedings may be required.

1.3 Proposed Solution

- Project Delivery Summary: The aggressive design build methods being utilized by the developer requires the following strategy to deliver the project:
- Phase I is underway and deals primarily with temporary power, relocations, and accommodations that address current developer needs from demolition and construction. Generally, the costs arising from this phase are paid by the developer and his contractors as accommodations. This phase also includes the project planning, estimating, and scoping which is estimated at $150,000.
- Phase II supports the distribution facilities immediately adjacent to the City Creek Center development. This phase consists primarily with customer installed duct banks and vaults and associated Rocky Mountain Power installed distribution electrical facilities. This phase is estimated at $9,350,000.
- Phase III provides the substation, transmission and distribution facilities to feed the final City Creek Center load requirements and will tie into the facilities installed in Phase II. This phase is expected to cost approximately $27,200,000.
- An owner's engineer has been contracted to develop detailed designs for Phase II as well as to provide scoping resources for Phases II and III. The owner's engineer will also provide support to develop the preliminary designs and specifications to bid an EPC for Phase III.
- The owner's engineer will research and propose routes for the distribution facilities for off development duct banks. Potholing and other methods will be utilized to confirm these routes to be utilized by the EPC.
- New equipment will be specified and bid to obtain the best possible solutions to satisfy the requirements.
- Property services will investigate property adjacent to Third West Substation and provide strategies to explore. Community manager will be utilized to help with

permitting issues.

1.3.1 Alternatives Considered

- Alternative 1. Convert Third West Substation to 138/12.5 kV with 2-50 MVA transformers. Convert West Temple Substation to 138/12.5 kV with 2-50 MVA transformers, removing and converting all 7.2 kV circuits from West Temple. The advantages for this alternative include the ability to more extensively convert the existing 7.2 kV system to 12.5 kV as recommended by the KEMA study and master plan, convert the existing 46 kV substations to 138 kV, and upgrade the extensive facilities at these two substations. The disadvantages for this alternative include added costs (approximately $162,000,000) and the added time to complete the work which would not fit the City Creek Center's schedule.
- Alternative 2. Convert Third West Substation to 138/12.5 kV with 2-50 MVA transformers. Convert Brunswick Substation to 138/12.5 kV with 2-50 MVA transformers, removing and converting all 7.2 kV circuits from Brunswick. The advantages for this alternative included the ability to more extensively convert the existing 7.2 kV system to 12.5 kV as recommended by the KEMA study and master plan, convert the existing 46 kV substations to 138 kV, and upgrade the extensive facilities at these two substations. The disadvantages for this alternative include added costs (approximately $67,000,000) and the added time to complete the work which would not fit the City Creek Center's schedule.
- Alternative 3. Convert Third West Substation to 138/12.5 kV with 2-50 MVA transformers. Install 6 new 12.5 kV circuits along with duct banks from Third West Substation to City Creek Center. Utilize two existing circuits from Third West Substation that have been unloaded due to demolition at City Creek Center. Add second 138/12.5 kV 30 MVA transformer at Morton Court including switchgear, 3-138 kV circuit breakers and circuits to accommodate loading issues, without extending circuits to City Creek Center. Although the Morton Court substation would not be utilized for City Creek Center under this alternative, load projections show that the second Morton Court 30 MVA transformer is needed for the summer of 2010. The disadvantages for this alternative are:
    - The two Third West Substation transformer banks (50 MVA) would be loaded to 40.6 and 39.4 MVA (80 percent of capacity) with City Creek Center loads. With 34 MVA of load not related to City Creek Center expected in the vicinity of Third West Substation through 2012, the two Third West transformers would be loaded to 100 percent capacity in 2012 - 2013.
    - Third West transformer and circuit capacity would not be available for non-standard 7.2 kV system conversions.
    - Existing circuits that will be utilized under this alternative run through deteriorating 3" orange-berg conduit, which increases the risk of not being able to pull in new cable should the existing cable fail.
    - Estimated cost of $41,000,000.
- Alternative 4. Doing nothing was considered and rejected. This does not accommodate the new loads anticipated for the City Creek Center under N-1

conditions.

1.4 Costs and Deliverables

1.4.1 Target Deliverables Complete

Phase I

- Underway
- Complete Feb. 2008

Phase II

- Planning — Complete
- Detail design — April 2008
- Construction — October 2009

Phase III

- Planning — Complete
- Detailed Scoping — April 2010
- Develop Package — January 2011
- Bid/Negotiate/Contract — February 2011
- Design/Construction complete — May 2012

Major equipment for the project is detailed in the following table:

Major Equipment	Description	No. of units
	138/12.5kV, 50MVA transformer	2
	138/12.5kV, 40MVA transformer	1
	12.5kV metal clad switchgear	3

1.4.2 Target Costs

The overall estimated project cost is $36,700,000. The project is made up of costs as shown in the following tables:

Phase I

Element	Cost
Planning, scoping, and preliminary engineering	
Internal labor and contract labor	$150,000
Phase I Total	$150,000

Phase II

Element	Cost
Distribution	
Electrical facilities(cable, transformers, switches, etc)	$5,350,000
Other(Ducts and Vaults on blocks 75 and 76, by developer)	$3,000,000
Phase II Total	$8,350,000

Phase III

Element	Cost
Substation	
Subtotal	$15,100,000
Transmission	
Subtotal	$2,900,000
Distribution	
Electrical facilities(cable, transformers, switches, etc)	$4,200,000
Other(Ducts and Vaults on blocks 75 and 76, by developer)	$3,000,000
Ducts from 200 E. 300 S. to 100 S Main St. by RMP	$3,000,000
Subtotal	$10,200,000
Phase III Total	$28,200,000

The work will be phased over multiple years. The project estimate includes contingency of $4,370,000 in 2012. $24.4m is included in the 10-year plan.

See the budget and expenditure request table below:

	Previous Years	2010	2011	2012	Total
10 Year Plan Budget	$6,944,908	$14,250,000	$10,250,000	$0	$31,444,908
Approved Project Spend	$6,944,908	$5,000,000	$10,885,092	$9,500,000	$32,330,000
Contingency				$4,370,000	$4,370,000
Total Project Spend	$6,944,908	$5,000,000	$10,885,092	$13,870,000	$36,700,000
Customer Funding					
Total Net Cost	$6,944,908	$5,000,000	$10,885,092	$13,870,000	$36,700,000
Variance from 10 Year Plan – (over) / under spend	$0	$9,250,000	($635,092)	($13,870,000)	($5,255,092)

Rocky Mountain Power expects the overspend or underspend to be offset by other projects. Total capital spending in these years will still be in line with the capital budget.

1.4.3 Accounting Issues or Regulatory Recovery Issues

This is a distribution project (138-12.5 kV) and will be recovered in general rates in Utah. The in-service date is projected at May 2012 and this project will be included in rate cases with test periods of July 2010 or later.

1.4.4 Return on Investment

Background

This is a $36.7 million project will provide reliable capacity to satisfy the new loads added by the City Creek Center development. This project should be in service by May 1, 2012.

Financial Analysis

Two alternatives were evaluated:

- Recommended Alternative:
  - Convert the existing 46/12.5 kV Third West substation to 138/12.5 kV; including:
    - Convert the Gadsby-Third West and Jordan-Third West lines to 138 kV.
    - Reconfigure the existing 12.5 kV circuits to new switchgear and extend 4-12.5 kV circuits to City Creek Center.
    - Add #2 138/12.5 kV, 30 MVA transformer at Morton Court Substation.
    - Extend two 12.5 kV circuits to City Creek Center from Morton Court.
    - Construct new 12.5 kV circuits at City Creek Center.
  - Capital spending of $44.2 million with an in-service date of July 1, 2010.
  - Capital spending of $0.15 million in calendar year 2007, $1.02 in 2008, $25.5 in 2009 and $17.5 in 2008.
  - Customer contribution of $7.00 million in calendar year 2009.
  - The North Temple 138/12.5 kV substation would be installed in 2015 at a cost of $9.2 million.
  - Total cost of $53.4 million less customer contribution of $7.0 million.

- Alternative #1 (Not Feasible).
- Alternative #2 (Not Feasible).
- Alternative #3 (Next Best Alternative):
  - Convert Third West Substation to 138/12.5 kV with two 50 MVA transformers.
  - Cost is approximately six percent less than the recommended alternative.
  - The North Temple 138/12.5 kV substation would be installed in 2013, two years earlier than in the recommended alternative.
  - The North Temple 138/12.5 kV substation would be installed in 2013 at a cost of $8.8 million.
  - Additional distribution facilities that are included in the recommended alternative would need to be constructed in 2013 at a cost of $2.7 million.
  - Total cost of $53.9 million less customer contribution of $7.0 million.

The financial analysis of the two alternatives is based on the following assumptions:

- The financial analysis was completed over 50 years.
- Distribution assets are depreciated over 20 years for tax and 45 years for book.
- Distribution assets are allocated to Utah.
- Operating & maintenance expense of 4.93 percent of cost in 2007 dollars.
- Administrative & general expense of 1.64 percent of cost in 2007 dollars.
- Other taxes of 0.04 percent of cost in 2007 dollars.
- Property taxes of 1.27 percent of net book value.
- A 37.95 percent tax rate was used.
- The financial analysis results presented below are based on the project's after-tax cash flows based on a capital structure of 48 percent debt and a 52 percent common with a 6.35 percent debt rate and a 10.5 percent common rate.
- A discount rate of 7.3 percent was applied to revenue requirements and unlevered cash flows.

The present value of the revenue requirements and after-tax cash flows is as follows:

Alternative	Total Capital Cost	Present Value of Revenue Requirements	Present Value of Unlevered Cash Flows
Recommended Alternative	$53,385k	$98,246k	($59,583k)
Alternative #3 (NBA)	$53,949k	$98,359k	($60,527k)

The recommended alternative to convert the existing 46/12.5 kV Third West substation to 138/12.5 kV, including conversion of the Gadsby-Third West 46 kV and Jordan-Third West 46 kV lines to 138 kV, has a slightly lower capital cost; $53.4 versus $53.9 million, and a present value of the revenue requirements benefit of $113,000 compared to the next best alternative.

The detailed financial results for the recommended alternative are as follows:

Project Name: City Creek Center, Recommended Alternatve
(Thousands of Dollars)

Project Economics

	Customer Revenue Requirement	Cash Flows Without Regulatory Recovery	Cash Flows With Regulatory Recovery
PV Revenue Requirement	$98,246		
Project NPV		($59,583)	$1,379
Project IRR		No Solution	7 74%
Discount Rate Used		7 3%	7 3%
Capital Productivity Ratio		(0 73)	1 04
Payback Period (years)*		Does Not Occur	13 5 Years

*Payback from start of spending

	2007	2008	2009	2010	2011	2012	2013
Capital Spending w/o AFUDC	$147	$974	$17,349	$16,109	$0	$0	$0
Capital Spending w AFUDC	$153	$1,022	$18,483	$17,543	$0	$0	$0
Net Cash Flow Without Regulatory Recovery							
Annual	($147)	($974)	($17,349)	($19,120)	($777)	($882)	($980)
Cumulative	($147)	($1,120)	($18,469)	($37,589)	($38,366)	($39,248)	($40,228)
Net Cash Flow With Regulatory Recovery							
Annual	($147)	($974)	($17,349)	($16,491)	$4,440	$4,232	$4,037
Cumulative	($147)	($1,120)	($18,469)	($34,960)	($30,520)	($26,288)	($22,251)
Incremental Earnings Before Interest & Taxes							
Without Regulatory Recovery	$0	$0	$0	($1,939)	($3,915)	($3,946)	($3,976)
With Regulatory Recovery	$0	$0	$0	$2,298	$4,494	$4,296	$4,108
Incremental Earnings @ 48.3% Debt Financing							
Without Regulatory Recovery	$2	$18	$506	($870)	($3,154)	($3,141)	($3,130)
With Regulatory Recovery	$2	$18	$506	$1,758	$2,064	$1,973	$1,887
Annual Revenue Requirement							
Calculated	$0	$0	$0	$4,236	$8,409	$8,242	$8,084
Recovered	$0	$0	$0	$4,236	$8,409	$8,242	$8,084

1.5 Procurement Strategy and Project Management

- Phase I- Delivery with in-house personnel.
- Phase II-Delivery with design by owner's engineer and bid construction by qualified contractor.
- Phase III-Delivery by LSA method.

1.6 Authorization

The following attachment contains the Superior Expenditure Requisition with Recommendation and Approval signature blocks.

PACIFICORP

Superior Expenditure Requisition
~ with contingency

City Creek Center, New 28MW Dev. For PRI	Revision #	Asset Location	Project Definition
	1	014981	DMET/2007/C/016

Requesting Cost Center Number / Name	Profit Center	Investment Reason	WBS Element
10958 - D_Salt Lake Bus Act	1135 - Metro Distribution	N2 - N. Rev/Con Commercial	DMET/2007/C/016/B

Funct Group	Project Group	Project Type	Plant	In Service Date Driver	Order
DLIN	DIS	10	2220 - Salt Lake Metro	Customer	10033209

Estimate Type	Eng'rg Req'd?	P M Req'd?	Planned Construction Labor	In-Service Date	Responsible Manager
Un-Scoped	YES	YES	COMPETITIVELY BID	7/1/2010	Brandon Smith

DESCRIPTION OF ASSET:
Convert existing 46/12.5kV Third West substation to 138/12.5kV, including conversion to 138kV of the Gadsby-Third West 46kV and Jordan-Third West 46kV lines. Reconfigure existing 12.5kV circuits to new switchgear and extend 4-12.5kV circuits to City Creek Center. Add #2 138/12.5kV, 30MVA transformer with associated metal clad switchgear at Morton Court. Extend two new 12.5kV circuits to City Creek Center from Morton Court. Construct new 12.5kV circuits with associated duct banks, vaults, and secondary system at City Creek Center.

PURPOSE AND NECESSITY:
Property Reserve Inc. is developing City Creek Center, which is a new development in downtown Salt Lake City that encompasses two city blocks, and half of another block. Current load sheets from the developer indicate new load of 28 megawatts. It is anticipated that load will begin to come online in mid 2009, and continue to increase to final build out in 2010.

Projected Conditions / Benefits:
This project will provide reliable capacity to satisfy the new loads added by the City Creek Center development. Third West substation will be loaded to 29MW and 33MW on banks 6 and 7 respectively under N-1 conditions. Morton Court will be loaded to 21MW and 17MW on banks 1 and 2 respectively under N-1 conditions.
The existing 7.2kV distribution on the development blocks will be converted to 12.5kV. The 12.5kV distribution system will be upgraded on the development blocks.

RISK ASSESSMENT AND ALTERNATIVES EVALUATED:
The developer is proceeding on an aggressive design-build/fast track process. Improvements need to be constructed timely to accommodate developments anticipated loadings.
The new underground facilities require extensive coordination with existing underground facilities with limited space in the public and private ways.
Non-standard 50MVA transformers and larger non-standard switchgear are being used for the first time which could challenge the engineering and delivery schedule.
Space in Third West Substation is limited. New property will be required unless a creative solution to utilize existing property is developed.
Capacity increases at West Temple Substation and Brunswick were evaluated but rejected due to cost and schedule conflicts.

Rev 1: Full project approval. Revenue credits will finance developer's share. Developer will be responsible for distribution ducts/vaults.

Economic Data and Cash Flow Information

IRR: _____ % Cash Flow NPV (D): $944,000 PV of Revenue Req'mts (D): ($113,000)
Payback: _____ years Net Benefit to Capital Ratio: _____

Year	Labor	Material (Less Salvage)	Purchased Services	Other	Surcharge + AFUDC	Authorized Gross	Less: Reimb/Other Owners Share	Total Net Cost	*Unreleased Contingency*	Auth Reqd: Total Gross & Contingency
FY 2008 (CY07)	$85,000	$0	$50,000	$7,198	$10,415	$152,613	$0	$152,613	*$0*	$152,613
CY 2008	$300,000	$100,000	$500,000	$31,600	$90,514	$1,022,114	$0	$1,022,114	*$0*	$1,022,114
CY 2009	$150,000	$9,900,000	$11,600,000	$1,650,000	$2,183,163	$25,483,163	($7,000,000)	$18,483,163	*$0*	$25,483,163
CY 2010	$150,000	$5,100,000	$6,929,111	$106,276	$1,875,923	$14,161,310	$0	$14,161,310	*$3,381,920*	$17,543,230
CY 2011						$0	$0	$0	*$0*	$0
Total	$685,000	$15,100,000	$19,079,111	$1,795,074	$4,160,015	$40,819,200	($7,000,000)	$33,819,200	$3,381,920	$44,201,120

DETAILED ESTIMATE & APPROVAL INFORMATION

ER ESTIMATED COST - ALL YEARS	TOTAL
1. Capital Additions	36,659,185
2. Removal Cost	0
3. Salvage ☐ *Check if Retiring Property Unit(s)*	0
4. Surcharge and AFUDC	4,160,015
5. TOTAL CAPITAL Authorized to Spend *(1 thru 4)*	**40,819,200**
6. Customer Advance/ Reimbursements	(7,000,000)
7. Other Owner's Share: ____ %	0
8. PACIFICORP'S CAPITAL SHARE (5 thru 7)	**33,819,200**
9. O&M Expense	0
10. TOTAL PROJECT *(5 thru 9)*	**33,819,200**
11. *Unreleased Contingency*	*3,381,920*
12. TOTAL APPROVED *Incl. Contingency (5 plus 11)*	44,201,120

Prepared By:	Empl. #	Date
Steve Jensen	5325	1/15/2008

RECOMMENDATIONS AND APPROVALS			
Eng Tech Review		Empl #	Date
Field Review:		Empl #	Date
Project Sponsor:		Empl #	Date
ERAT Review:		Empl #	Date
Invest Delivery:		Empl #	Date
Financial Review:		Empl #	Date
Final Approval:		Empl #	Date

REVISION 1: Updated January 2008

An Investment Appraisal for *City Creek Center, New 28 MW development for PRI*

Part 2 – Detailed Technical Assessment

Pacific Power / Rocky Mountain Power

1 Project Description

This project will include the following components:

- Rebuild Third West Substation and convert from 46/12.5 kV to 138/12.5 kV delivery.
- At Third West Substation expand the substation site as required to allow adequate space and to allow construction while existing substation is in service.
- Third West Substation will include 4-138 kV circuit breakers, 2-138/12.5 kV, 50 MVA transformers, 2-7 circuit metal-clad switchgear and 2-5.4 MVAR capacitors. Four feeders will be extended to City Creek Center in new and existing duct bank.
- Construct new 138 kV line positions at Gadsby and Jordan and convert the existing Jordan-Third West 46 kV and Gadsby-Third West 46 kV to 138 kV to feed converted Third West Substation.
- Convert 2-7.2 kV circuits to 12.5 kV at City Creek Center.
- Design and construct 12.5 kV distribution system adjacent to the City Creek Center development, including secondary system to the new meter locations.
- At Morton Court, add 138/12.5 kV, 40 MVA substation including transformer, switchgear, 5.4 MVAR capacitor bank, and 138 kV bus modifications (including 3-additional 138 kV circuit breakers).
- Extend 2-12.5kV circuits from new Morton Court transformer to City Creek Center.

2 Purpose and Necessity

Property Reserve Inc. (PRI) is developing City Creek Center, which is a development in down town Salt Lake City that encompasses two and one half city blocks. Current load sheets from the developer indicate a City Creek Center load of 27.5 MVA. The initial loads for the project are expected in 2009 with full loading requirements in 2012.

The developed area also includes several building facilities that will remain unchanged including some facilities needing to be fed from the new power upgrades installed for City Creek Center. Non-City Creek Center loads that remain are approximately 14.3 MVA.

The total demand load anticipated for City Creek Center on the reconstructed 2.5 city blocks is 32.2 MVA.

The developer has already begun demolition, design, and construction. Rocky Mountain Power is working with the developer to accommodate the initial temporary power, relocations, and removal activities.

Much of the existing distribution facility locations, conflict with the new development and require demolition. Much of the existing distribution duct systems are comprised of small and obsolete "orange-berg" duct that will not allow re-installation of new conductor. These issues require new duct banks and vaults adjacent to the development to feed the new City Creek Center facilities. Existing facilities are being utilized where practical.

- This project is required to serve the anticipated load requirements of the development. Existing substation and distribution electrical facilities will not accommodate the additional 14.6 MVA of load under an N-1 condition.
- In 2007, at Third West Substation and under N-1 conditions, bank #6 is loaded to 9.9 MVA with a 22.4 MVA capacity and bank #7 is loaded to 22.9 MVA out of a 22.4 MVA capacity.
- In 2007, at Morton Court Substation and under N-1 conditions, bank #1 is loaded to 27 MVA out of a 28 MVA capacity.
- In 2007, at Brunswick Substation and under N-1 conditions, bank #3 is loaded to 15.4 MVA out of 22.4 MVA capacity.
- As demonstrated by the preceding points, there is 20 MVA of existing available capacity on the substations adjacent to the City Creek Center development. Existing substation and distribution electrical facilities will not accommodate the 32.2 MVA of new load plus provide capacity to back it up.
- Master planning studies and loading requests have also projected that loadings in the Morton Court to 3rd West Substation vicinities will likely grow an

additional 81 to 131 MVA by 2017.

- The City Creek Center location currently has 4.7 MVA of load on the outdated 7.2kV distribution system that needs conversion to 12.5 kV.
- The 27.5MVA of City Creek Center load plus the 4.7 MVA of 7.2 kV conversion load requires 6 new 12.5 kV circuits under N-1 conditions.

3 Risk Analysis Matrix

The following table depicts the relative risk to the project and associated customers based on consideration of the factors listed below the table.

	Negligible	Marginal	Critical	Catastrophic
Near Certain (>70%)			✻	
Probable (40% to 70%)				
Possible (5% to 40%)				
Improbable (<5%)				
Financial Impact	< $500,000	> $500,000	> $2,500,000	> $5,000,000
Customer Impact (outage)	< 1 day	>1 day	>2 days	> 5 days
Critical Business Infrastructure (Call Centers)	< 1 hour	< 4 hours	< 6 hours	> 8 hours
Core Business Assets (Metering)	< 1 day	< 2 days	< 4 days	> 4 days
Customer Minutes Lost	CML < 1,000,000	CML > 1,000,000	CML > 50,000,000	CML > 100,000,000

Guidelines for Risk Evaluation:

Probability: The probability is determined on an "annualized" basis – that is; what is the probability of the hazard or event that the project is intended to mitigate occurring in a given year. This should be based on historical failure rates or other data if available or best available engineering / operational judgments:

Financial Impact: The additional costs the company would occur if the project were not performed, OR

savings the company would not received if the project were not done. Examples would be: costs to replace a failed transformer if a capacity increase job is not performed. Estimated net present value of savings associated with automated meter reading project.

Customer Impact: Length of time a customer may be expected to be without power if the project is not performed.

Core Business Assets: This is the estimated length of time core business systems such as meter reading, billing, call centers, dispatching systems etc. would be out of service due to the risks the project is intended to mitigate.

Customer Minutes Lost: The estimated CML that would be avoided if the project was performed OR the improvement in CML the project is intended to deliver.

Other: Other impacts may be listed as they apply. They should be categorized under the catastrophic, manage, etc. categories on a like basis (ie. Catastrophic are major level events – typically one or two occur annually in PP or RMP)

3.1 Alternatives Considered

Alternative 1: Convert Third West Substation to 138/12.5 kV with 2-50 MVA transformers. Convert West Temple Substation to 138/12.5 kV with 2-50 MVA transformers, removing and converting all 7.2 kV circuits from West Temple. The advantages for this alternative include the ability to more extensively convert the existing 7.2 kV system to 12.5 kV as recommended by the KEMA study, convert the existing 46 kV substations to 138 kV, and upgrade the extensive facilities at these two substations. The disadvantages for this alternative include added costs (approximately $152,000,000) and the added time to complete the work which would not fit the City Creek Center's schedule.

Alternative 2: Convert Third West Substation to 138/12.5 kV with 2-50 MVA transformers. Convert Brunswick Substation to 138/12.5 kV with 2-50 MVA transformers, removing and converting all 7.2 kV circuits from West Temple. The advantages for this alternative included the ability to more extensively convert the existing 7.2 kV system to 12.5 kV as recommended in the KEMA study, convert the existing 46 kV substations to 138 kV, and to upgrade the extensive facilities at these two substations. The disadvantages for this alternative include added costs

(approximately $62,000,000) and the added time to complete the work which would not accommodate the City Creek Center's schedule.

- Alternative 3: Convert Third West Substation to 138/12.5 kV with 2-50 MVA transformers. Install 6 new 12.5 kV circuits along with duct banks from Third West Substation to City Creek Center. Utilize two existing circuits from Third West Substation that have been unloaded due to demolition at City Creek Center. Add second 138/12.5 kV 30 MVA transformer at Morton Court including switchgear, 3-138 kV circuit breakers and circuits to accommodate loading issues, without extending circuits to City Creek Center. Although the Morton Court substation would not be utilized for City Creek Center under this alternative, load projections show that the Morton Court 40 MVA transformer is needed for the summer of 2010. The disadvantages for this alternative are:
    - The two Third West Substation transformer banks (50 MVA) would be loaded to 40.6 and 39.4 MVA (80 percent of capacity) with City Creek Center loads. With 34 MVA of load not related to City Creek Center expected in the vicinity of Third West Substation through 2012, the two Third West transformers would be loaded to 100 percent capacity in 2012 - 2013.
    - Third West transformer and circuit capacity would not be available for non-standard 7.2 kV system conversions.
    - Existing circuits that will be utilized under this alternative run through deteriorating 3" orange-berg conduit, which increases the risk of not being able to pull in new cable should the existing cable fail.
    - Estimated cost of $41,000,000.

Alternative 4: Doing nothing was considered and rejected. This does not accommodate the new loads anticipated for the City Creek Center under N-1 conditions.

3.2 Project Risk Factors Considered

- Risk: The developer is proceeding on an aggressive design-build/fast track process to construct the new development. Satisfying the developer's needs for temporary power, relocations during demolition, accommodations, installation of facilities while the public ways are disturbed, and providing overall initial and final power to the development is challenging company processes and resources. Risk mitigation: The project will be separated into three phases and three methods of delivery to accommodate the customer's

schedule.

- Risk: Internal company design resources are constrained. Risk Mitigation: An owner's engineer has been contracted to develop detailed designs for Phase II as well as to provide scoping resources for Phases II and III. The owner's engineer will also provide support to develop the preliminary designs and specifications to bid an EPC for Phase III.
- Risk: The new required underground facilities require extensive coordination with existing underground facilities with extremely limited space in the public and private ways. Risk mitigation: The owner's engineer will research and propose routes for the distribution facilities for off development duct banks. Potholing and other methods will be utilized to confirm these routes to be utilized by the EPC.
- Risk: Non-standard 50 MVA transformers and larger switchgear are being used for the first time which could challenge the engineering and delivery schedule. Risk mitigation: New equipment will be specified and bid to obtain the best possible solutions to satisfy the requirements.
- Risk: Continuation of acceptable relationships with Salt Lake City, effected property owners, and key stakeholders. Third West Substation will likely require additional property for expansion with the associated permitting requirements from the city. Condemnation proceedings may be required. Risk mitigation: Contacts will be made with City officials to determine feasible solutions that will be supported by the City. Community manager and public relations will be utilized to help with permitting issues and communicating issues to City and public. Property services will investigate property adjacent to Third West Substation and provide strategies to explore.
- Risk: Continuation of acceptable relationship with developer. Developer's owner is key stakeholder in the region, state, and the city. Risk mitigation: Account manager will work closely with developer and senior management within Rocky Mountain Power to develop defensible strategies that will satisfy the needs of Rocky Mountain Power, the developer, and other customers. Contracts with the developer will be structured to accommodate the key issues.

4 Assumptions

- Phase I of project is underway and will complete by February 2008.
- Phase II of project will be completed by 2010.
- LSA will be secured for phase III by early 2011.
- Phase III of project will be completed by mid-2012.
- Design criteria for downtown underground is N-1 with a feeder backup of approximately 65-70 percent.

5 Project Management and Delivery

Project Management/Delivery Summary

The aggressive design build methods being utilized by the developer require the following strategy to deliver the project:

Phase I: Phase I is underway and deals primarily with temporary power, relocations, and accommodations that address current developer needs from demolition and construction. Generally, the costs arising from this phase are paid by the developer and his contractors. This phase also includes the project planning, estimating, and scoping. This portion of the Phase I is estimated at $150,000.

- This phase is being managed by internal resources utilizing typical methods and processes for this type of work.

Phase II: Phase II supports the distribution facilities immediately adjacent to the City Creek Center development. This phase consists primarily of customer installed duct banks and vaults and associated Rocky Mountain Power installed distribution electrical facilities. This phase is estimated at $8,350,000.

- This phase will be delivered by a traditional design, bid, and construct method.
- A project manager will be assigned to manage the construction and inspection of this phase.

- An owner's engineer will be utilized to provide the detailed construction documents to be competitively bid to qualified contractors.

Phase III: Phase III provides the substation, transmission and distribution facilities to feed the final City Creek Center load requirements and will tie into the facilities installed in Phase II. This phase is expected to cost approximately $28,200,000.

- This phase will be delivered by a traditional design, bid, and construct method.
- A project manager will be assigned to manage the construction and inspection of this phase.
- Internal design will create the construction documents.

6 Project Scope Documents/Diagrams

- Detail scope is under development by owner's engineer.
- One-line diagrams, maps, sketches attached

7 ER Face Sheet, Cost responsibility summary, and PCN-Attached