INVESTMENT APPRAISAL 2007-2010

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

Part 1 – Executive Report & Authorization Part 2 – Detailed Technical Assessment

Project Originator: Steven R. Jensen

Pacific Power / Rocky Mountain Power

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Part 1 – Executive Report & Authorization

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1 Executive Summary

Decision Required

Approve funding for City Creek Center project, \$43,700,000.

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 27.5MVA. The initial loads for the project are expected in 2009 with full loading requirements in 2010.

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 4.7MW of 7.2kV conversion) is 32.2MVA.

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 "orangeberg" 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 131MVA 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 46/12.5kV substation to 138/12.5kV substation

including 4-138kV circuit breakers, with two 50MVA transformers including switchgear, and four underground 12.5kV circuits with duct banks extending to City Creek Center.

- Convert the existing Gadsby -Third West 46kV line and Jordan-Third West 46kV line to 138kV including addition of 138kV line positions at Gadsby, Jordan, and Third West substations.
- Add second 138/12.5kV 30MVA transformer at Morton Court including switchgear, 3-138kV circuit breakers, two underground 12.5kV circuits with duct banks extending to City Creek Center, and relocate an existing 12.5kV circuit to new switchgear.
- Install upgraded 12.5kV 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 4.7MVA of existing 7.2kV 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 9.9MVA with a 22.4MVA capacity and bank #7 is loaded to 22.9MVA out of a 22.4MVA capacity.
- In 2007, at Morton Court Substation and under N-1 conditions, bank #1 is loaded to 27.0MVA out of a 28MVA capacity.
- In 2007, at Brunswick Substation and under N-1 conditions, bank #3 is loaded to 15.4MVA out of 22.4MVA 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 32.2MVA 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 28.8MVA out of 50MVA under N-1 conditions.
- At Third West Substation, bank #7 will be loaded to 32.8MVA out of 50 MVA under N-1 conditions.
- At Morton Court Substation, bank #1 will be loaded to 21.0MVA out of 28MVA under N-1 conditions.
- At Morton Court Substation, bank #2 will be loaded to 17.1MVA out of 30MVA 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 7.2kV 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 50MVA transformers and larger switchgear are being used for the first time which could challenge the engineering and delivery schedule.
- Third West Substation will require additional property for expansion with the associated permitting requirements from the city. Condemnation proceedings may be required.

1.3 Proposed Solution

- <u>Project Delivery Summary:</u> 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 \$34,200,000 with most of the costs borne by Rocky Mountain Power.
- 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 2-50MVA transformers. Convert West Temple Substation to 138/12.5kV with 2-50MVA transformers, removing and converting all 7.2kV circuits from West Temple. The <u>advantages</u> for this alternative include the ability to more extensively convert the existing 7.2kV system to 12.5kV as recommended by the KEMA study and master plan, convert the existing 46kV substations to 138kV, and upgrade the extensive facilities at these two substations. The <u>disadvantages</u> 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 2-50MVA transformers. Convert Brunswick Substation to 138/12.5kV with 2-50MVA transformers, removing and converting all 7.2kV circuits from Brunswick. The <u>advantages</u> for this alternative included the ability to more extensively convert the existing 7.2kV system to 12.5kV as recommended by the KEMA study and master plan, convert the existing 46kV substations to 138kV, and upgrade the extensive facilities at these two substations. The <u>disadvantages</u> 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 2-50MVA 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 138/12.5kV 30MVA transformer at Morton Court including switchgear, 3-138kV circuit breakers and circuits to accommodate loading issues, without extending circuits to 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 advantages for this alternative include a small relative cost savings to the project (approximately \$41,000,000 or a savings of approximately 6%). The disadvantages for this alternative are:
 - \circ The two Third West Substation transformer banks (50 MVA) would

be loaded to 40.6 and 39.4 MVA (80% 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% 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" orangeburg conduit, which increases the risk of not being able to pull in new cable should the existing cable fail.
- 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

<u>Phase I</u>

- Underway
- Complete Feb. 2008

Phase II

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

Phase III

Planning Complete
Detailed Scoping December 2007
Develop EPC package March 2008
Bid/Negotiate/Contract EPC December 2008

• Design/Construction complete July 2010

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, 30MVA transformer | 1 |
| | 12.5kV metal clad switchgear | 3 |

1.4.2 Target Costs

The overall estimated project cost is \$43,700,000 of which \$7,000,000 is trenching/vault costs directly attributable to developer and not eligible for revenue credit financing. The project is made up of costs as shown in the following tables:

<u>Phase I</u>

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

<u>Phase II</u>

| Element | Cost |
|---|-----------|
| Distribution | |
| Electrical facilities(cable, transformers, switches, etc) | 6,350,000 |
| Other(Ducts and Vaults on blocks 75 and 76, by | 3,000,000 |

| developer) | |
|----------------|-------------|
| Phase II Total | \$9,350,000 |

<u>Phase III</u>

| Element | Cost |
|---|--------------|
| Substation | |
| Subtotal | \$18,100,000 |
| Transmission | |
| Subtotal | \$2,900,000 |
| Distribution | |
| Electrical facilities(cable, transformers, switches, etc) | \$5,200,000 |
| Other(Ducts and Vaults on blocks 75 and 76, by | \$4,000,000 |
| developer) | |
| Ducts from 200 E. 300 S. to 100 S Main St. by RMP | \$4,000,000 |
| Subtotal | \$13,200,000 |
| Phase III Total | \$34,200,000 |

The work will be phased over x years:

| | 2007 | 2008 | 2009 | 2010 |
|------------------------|-----------|-------------|--------------|--------------|
| 10 Year Plan Budget | | | | |
| CY Approved Budget | | | | |
| Expenditure Request | \$152,613 | \$1,000,000 | \$25,000,000 | \$17,547,387 |

1.4.3 Accounting Issues or Regulatory Recovery Issues

• These issues if any will be addressed by finance.

1.5 Return on Investment

• Financial analysis will be conducted by Rocky Mountain Power Finance.

1.6 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 EPC method.

1.7 Authorization

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

| PA | CIFICOF | <u>Sb</u> | | Superior Dis | stribution Ex | cpenditure Requisition |
|---|----------------------|-----------------------------|----------------------------|--------------------------------|----------------|---------------------------------------|
| City C | Creek Center | , New 28M | W Dev. For PRI | Revision # 1 | Asset Location | Project Definition DMET/2007/C/016 |
| Requesting Cost (| Center Number / Name | | Profit Center | Investme | nt Reason | WBS Element |
| Requesting Cost Center Number / Name Profit Center 10958 - Salt Lake Bus Act 1135 - SL Metro Distrib | | N2 - New Rev/Connect - Comm | | DMET/2007/C/016/B | | |
| Funct. Group | Project Group | Project Type | Plant | Preferred In- | Service Date | Order |
| DLIN | DIS | 10 - Lines | 2220 - Salt Lake Metro | 6/1/ | 2010 | 10033209 |
| Estimate Type | Eng'rg Req'd | P.M. Req'd | Planned Construction Labor | Not-Later-Than In-Service Date | | Responsible Manager |
| Block | YES | YES | UNDECIDED | 7/1/ | 2010 | TBD |

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

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.

ALTERNATIVES EVALUATED

Several combinations of substation and circuit upgrades were considered but rejected due to cost and/or schedule. Doing nothing would not satisfy the loads anticipated.

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

| | Loss Savings: | | kW | | kWh | | | |
|----------------------------------|-----------------------|----------------------------|-----------------------|---------------------|----------------------|---------------|------------------------------------|-----------------------|
| Economic Data a | ind Cash Flow Informa | tion | | | | | | |
| IRR: | | % | | Cash Flow NPV: | | PV of F | evenue Reg'mts: | |
| Payback | | years | Net Benefi | t to Capital Ratio: | | | 1 | |
| Fiscal Year | Labor | Material (Less Salvage) | Purchased Services | Other | Surcharge + AFUDC | Total | Less: Reimb/Other Owner's Share | Net (Capital Cost) |
| Prior | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 | \$0 |
| FY 2008 (CY07) | \$75,000 | | \$50,000 | \$7,500 | \$20,113 | \$152,613 | \$0 | \$152,613 |
| CY 2008 | \$300,000 | \$100,000 | \$430,000 | \$38,210 | \$131,790 | \$1,000,000 | | \$1,000,000 |
| Future | \$300,000 | \$17,500,000 | \$17,500,000 | \$1,640,069 | \$5,607,318 | \$42,547,387 | (\$7,000,000) | \$35,547,387 |
| Total | \$675,000 | \$17,600,000 | \$17,980,000 | \$1,685,779 | \$5,759,221 | \$43,700,000 | (\$7,000,000) | \$36,700,000 |
| | | DÉ | TAILED ESTIMAT | E & APPROVAL | INFORMATION | | • | |
| | ER ESTIMA | TED COST - ALL ` | YEARS | TOTAL | REC | COMMENDATION | IS AND APPROVA | ALS |
| | 1. Capital Additions | | | 37,940,779 | Eng Tech Review | | Empl. # | Date |
| | 2. Removal Cost | | | 0 | | | | |
| | 3. Salvage | Check if retir | ing units | 0 | Field Review: | | Empl.# | Date |
| | 4. Surcharge and AFU | DC | | 5,759,221 | | | | |
| | 5. TOTAL CAPITAL P | ROJ. (1+2-3+4) | | 43,700,000 | Project Sponsor: | | Empl.# | Date |
| | 6. Customer Advance/ | Reimbursements | | (7,000,000) | | | | |
| | 7. Other Owner's Shar | e % | | | ERAT Review: | | Empl.# | Date |
| | 8. PACIFICORP'S CA | PITAL SHARE (5-4 | 6-7) | 36,700,000 | | | | |
| | 9. O&M Expense | | | | Asset Mgmt - Inve | est Delivery: | Empl.# | Date |
| 10. TOTAL PROJECT (8 + 9) | | | 36,700,000 | | | | | |
| | 11. Committed Costs: | | | | Financial Review: | | Empl. # | Date |
| | 12. Equipment Transfe | rs: | | | | | | |
| Prepared By: Steven R. Jensen | | | Empl. # P05325 | Date 10/9/2007 | Final Approval: | | Empl. # | Date |

INVESTMENT APPRAISAL 2007-2010

An Investment Appraisal for

City Creek Center, New 28MW 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 46/12.5kV to 138/12.5kV 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 4-138kV circuit breakers, 2-138/12.5kV, 50MVA transformers, 2-7 circuit metal-clad switchgear and 2-5.4MVAR capacitors. Four feeders will be extended to City Creek Center in new and existing duct bank.
- Construct new 138kV line positions at Gadsby and Jordan and convert the existing Jordan-Third West 46kV and Gadsby-Third West 46kV to 138kV to feed converted Third West Substation.
- Convert 2-7.2kV circuits to 12.5kV at City Creek Center.
- Design and construct 12.5kV distribution system adjacent to the City Creek Center development, including secondary system to the new meter locations.
- At Morton Court, add 138/12.5kV, 30MVA substation including transformer, switchgear, 5.4MVAR capacitor bank, and 138kV bus modifications (including 3-additional 138kV 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 27.5MVA. The initial loads for the project are expected in 2009 with full loading requirements in 2010. 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 on the reconstructed 2.5 city blocks is 32.2MVA.

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 14.6MVA of load under an N-1 condition.
- In 2007, at Third West Substation and under N-1 conditions, bank #6 is loaded to 9.9MVA with a 22.4MVA capacity and bank #7 is loaded to 22.9MVA out of a 22.4MVA capacity.
- In 2007, at Morton Court Substation and under N-1 conditions, bank #1 is loaded to 27MVA out of a 28MVA capacity.
- In 2007, at Brunswick Substation and under N-1 conditions, bank #3 is loaded to 15.4MVA out of 22.4MVA capacity.
- As demonstrated by the preceding points, there is 20MVA of existing available capacity on the substations adjacent to the City Creek Center development. Existing substation and distribution electrical facilities will not accommodate the 32.2MVA 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 131MVA by 2017.

- The City Creek Center location currently has 4.7MVA of load on the outdated 7.2kV distribution system that needs conversion to 12.5kV.
- The 27.5MVA of City Creek Center load plus the 4.7MVA of 7.2kV conversion load requires 6 new 12.5kV 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 | <mark>> \$5,000,000</mark> |
| Customer Impact (outage) | < 1 day | <mark>>1 day</mark> | >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:

<u>Probability</u>: 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.

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

<u>Core Business Assets</u>: 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.

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

<u>Other:</u> 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 2-50MVA transformers. Convert West Temple Substation to 138/12.5kV with 2-50MVA transformers, removing and converting all 7.2kV circuits from West Temple. The <u>advantages</u> for this alternative include the ability to more extensively convert the existing 7.2kV system to 12.5kV as recommended by the KEMA study, convert the existing 46kV substations to 138kV, and upgrade the extensive facilities at these two substations. The <u>disadvantages</u> 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 2-50MVA transformers. Convert Brunswick Substation to 138/12.5kV with 2-50MVA transformers, removing and converting all 7.2kV circuits from West Temple. The <u>advantages</u> for this alternative included the ability to more extensively convert the existing 7.2kV system to 12.5kV as recommended in the KEMA study, convert the existing 46kV substations to 138kV, and to upgrade the extensive facilities at these two substations. The <u>disadvantages</u> 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 2-50MVA 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 138/12.5kV 30MVA transformer at Morton Court including switchgear, 3-138kV 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 <u>advantages</u> for this alternative include a small relative cost savings to the project (approximately \$41,000,000 or a savings of approximately 6%). The <u>disadvantages</u> for this alternative are:

- The two Third West Substation transformer banks (50 MVA) would be loaded to 40.6 and 39.4 MVA (80% 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% capacity in 2012 - 2013.
- Third West transformer and circuit capacity would not be available for nonstandard 7.2 kV system conversions.
- Existing circuits that will be utilized under this alternative run through deteriorating 3" "orangeburg" conduit, which increases the risk of not being able to pull in new cable should the existing cable fail.

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

• <u>Risk</u>: 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. <u>Risk mitigation</u>: The project will be separated into three phases and three methods of delivery to accommodate the customer's schedule.

- <u>Risk</u>: Internal company design resources are constrained. <u>Risk Mitigation</u>: 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.
- <u>Risk</u>: The new required underground facilities require extensive coordination with existing underground facilities with extremely limited space in the public and private ways. <u>Risk mitigation</u>: 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.
- <u>Risk</u>: Non-standard 50MVA transformers and larger switchgear are being used for the first time which could challenge the engineering and delivery schedule. <u>Risk mitigation</u>: New equipment will be specified and bid to obtain the best possible solutions to satisfy the requirements.
- <u>Risk</u>: 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. <u>Risk mitigation</u>: 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.
- <u>Risk</u>: Continuation of acceptable relationship with developer. Developer's owner is key stakeholder in the region, state, and the city. <u>Risk mitigation</u>: 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 mid-2009.
- EPC will be secured for phase III by late 2008.
- Phase III of project will be completed by mid-2010.
- Design criteria for downtown underground is N-1 with a feeder backup of approximately 65-70%.

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:

<u>Phase I:</u> 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.

<u>Phase II:</u> 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 \$9,350,000.

- 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.

<u>Phase III:</u> 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 \$34,200,000 with most of the costs borne by Rocky Mountain Power.

- This phase will be delivered by an EPC methodology.
- A project manager will be assigned to manage the EPC process and inspection of this phase.
- An owner's engineer will be utilized to provide the technical documents required to bid an EPC contractor.

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

11-035-200/Rocky Mountain Power May 14, 2012 DPU Data Request 30.16

DPU Data Request 30.16

<u>**Capital Expenditures</u>**: RMP's Utah Electric Service Regulation No. 12 - Line Extensions (Regulation 12) describes how much capital investment RMP will make in distribution and / or transmission facilities before seeking a Contribution In Aid of Construction ("CIAC") from the customer. For non-residential customers, this level appears to be 16 months of revenue per Regulation 12. Is this a correct interpretation of this policy? Is it ever waived, especially for large projects such as City Creek?</u>

Response to DPU Data Request 30.16

Yes, the capital investment Rocky Mountain Power will make in facilities which are determined to be the customer's responsibility is 16 months of average revenue for non-residential customer loads and \$1100 per residence for residential units, as specified in Regulation 12, Sections 2 and 3. This amount is called the Allowance or Extension Allowance in Regulation 12. Rocky Mountain Power does not waive the Allowance.

City Creek Reserve Inc Allowance/Revenue Tracking Sheet

| Station | CCRI Station # | Load (kW) | Service description | Re alle \$11 no. | esidential owance= 100 x Units | Co Re an | ommercial evenue nual | 1 |
|------------------|-------------------|--------------|---|---------------------------|---|----------------|-----------------------------|---|
| 145** | E6W2B | 2280 | BL76 HVAC/ House Loads | | | \$ | 707,683.00 | |
| 145 | E6W2B | 149 | Tenants NW | | | \$ | 51,050.00 | |
| 145 | E6W2A | 532 | BL 76 W. Parking | | | \$ | 179,821.00 | |
| 145** | E6W2A | 928 | Nordstroms | | | \$ | 315,993.00 | |
| 146 | E6W1 | 462 | Tower 1 Residential 185 units | \$ | 203,500.00 | | | |
| 146 | E6W1 | 1661 | Tower 1 Commercial | | | \$ | 569,438.00 | |
| 147 | E6N1 | 1000 | Tower 6 Commercial | | | \$ | 343,031.00 | |
| 147 | E6N1 | 172 | Tower 6 Residential 39 units | \$ | 42,900.00 | | | |
| 148 | E6N2 | 748 | Tower 7 Residential 120 units | \$ | 132,000.00 | | | |
| 148 | E6N2 | 1214 | Tower 7 Commercial | | | \$ | 416,300.65 | |
| 149 | E6E2B | 1330 | Parking Garage East | | | \$ | 613,970.00 | |
| 153 | E5N1 | 1912 | Tower 4 Commercial 50 E S Temple | | | \$ | 608,000.00 | |
| 154 | E5S1A | 2161 | BL 75 S. Parking | | | \$ | 1,584,353.83 | |
| 154 | E5S1A | 2162 | Central Plant | | | | | |
| 152 | E5S1B | 831 | Tower 5 Commercial | | | \$ | 296,388.00 | |
| 152 | E5S1B | 948 | Tower 5 Residential 158 units | \$ | 173,800.00 | | | |
| 155 | E5W1 | 2325 | Retail, Macy's | | | \$ | 811,948.00 | |
| 73 | E6E1 | 1097 | Mini Anchor | | | \$ | 398,365.49 | |
| 151 | E6E2A | 732 | Tenants SE | | | \$ | 227,000.00 | |
| 151 | E6E2A | 336 | Residential SE above Retail (48 units) | \$ | 52,800.00 | | | |
| 150 | E6S1A | 998 | Tower 2 Commercial | | | \$ | 302,678.37 | |
| Harmons | | 865 | Harmons/Parking | | | \$ | 398,000.00 | |
| Totals | | 24843 | | \$ | 605,000.00 | \$ | 7,824,020.34 | |
| Total ResLoad | | 2666 | | | | | | |
| | | 1 | | 1 | | I | | |

11-035-200/Rocky Mountain Power May 15, 2012 DPU Data Request 31.2

DPU Data Request 31.2

Provide any estimates of CIAC payments to be made by PRI the developer of City Creek.

Response to DPU Data Request 31.2

No CIAC (contributions in aid of construction) payments were anticipated from Property Reserve Inc. (PRI), therefore no estimates were made. However, PRI provided value in the form of ducts and vaults as referenced in Attachment DPU 2.29 -2, see file City Creek IAD. That value was estimated at \$1.45 million after work had been completed.