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Issue: Certificate of
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Witness: Brian P. Kirk

Type of Exhibit: Direct Testimony

Sponsoring Party: Trigen-Kansas City

Case No. HA-2006-0294

Date Testimony Prepared: March 15, 2006

BEFORE THE PUBLIC SERVICE COMMISSION

STATE OF MISSOURI

DIRECT TESTIMONY

OF

BRIAN P. KIRK

TRIGEN-KANSAS CITY ENERGY CORP.

NP

Exhibit No. 1
Case No(s) HA-2006-0294
Date 3-15-06 **Rptr** KE

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HC Schedule BPK-1	Trigen Highly Confidential Response to Staff Data Request No. 1.
HC Schedule BPK-2	Steam Heating Service Territory Expansion Feasibility Study.
NP Schedule BPK-3	Trigen Response to Staff Data Request No. 8.
NP Schedule BPK-4	Trigen Response to Staff Data Request No. 9.
NP Schedule BPK-5	Service Territory Map – Proposed Expansion Area.
NP Schedule BPK-6	Territorial Description – Proposed Expansion Area.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
DIRECT TESTIMONY OF BRIAN P. KIRK
ON BEHALF OF TRIGEN KANSAS CITY ENERGY CORP.
CASE NO. HA-2006-0294**

1 Q. Please state your name and business address.

2 A. My name is Brian P. Kirk and my business address is Trigen-Kansas City Energy
3 Corporation, 115 Grand Avenue, Kansas City, MO 64106.

4

5 Q. By whom are you employed and in what capacity?

6 A. I am employed by ThermalSource, LLC, a wholly owned subsidiary of Thermal North
7 America, Inc., and serve as Vice President & General Manager of Trigen-Kansas City
8 Energy Corporation (referred to in this document as "Trigen" or the "Company").¹

9

10 Q. Please describe your educational background and professional experience.

11 A. I received a Bachelor of Engineering in Marine Engineering from SUNY Maritime
12 College-Fort Schuyler in 1983 and a Juris Doctor degree from Fordham University
13 School of Law in 1993. I am licensed to practice law in the states of New York and
14 Missouri; however, I do not presently do so in either jurisdiction. I began my career as
15 an engineering officer in the US Merchant Marine in 1983 and worked for three years on
16 various ocean-going vessels. I joined the Consolidated Edison Company of New York in
17 1986 and held supervisory and managerial positions in power generation and steam
18 distribution. In 1995 I joined Trigen-Kansas City Energy Corporation as a project
19 manager. Since that time I have held various positions within the Company up to my
20 current position as Vice President & General Manager.

¹ Trigen-Kansas City Energy Corporation is also a wholly owned subsidiary of Thermal North America, Inc.

1

2 Q. Have you ever testified before this Commission or any other regulatory commission?

3 A. In 1999, I testified briefly in front of this Commission in relation to the then-pending
4 affiliate transaction rules. In 2005, I testified before this Commission in a complaint case
5 regarding the compelled removal of a section of Trigen's piping network to accommodate
6 construction of the prospective Sprint Center Arena.

7

8 Q. What is the nature of the business of Trigen?

9 A. Trigen owns and operates the district steam system located in the central business district
10 of the City of Kansas City, in an area commonly known as the "Downtown Loop."
11 Trigen distributes steam through a network of approximately 6.5 miles of pipe buried in
12 the streets of Kansas City. Trigen delivers and sells that steam to approximately 65
13 customers within the Loop. The steam is primarily used by Trigen's customers to heat
14 occupied spaces in buildings. In some cases, customers may use steam to humidify
15 spaces, heat domestic water, provide heat for laundry and/or prepare food. In other,
16 selected circumstances, steam is used for various industrial processes. Trigen's
17 customers include commercial and governmental office buildings, hotels and apartment
18 buildings.

19

20 Q. Are you familiar with the Application filed by Trigen on January 10, 2006, seeking
21 Commission authority to expand its certificated service territory in an area generally
22 extending south of the Downtown Loop?

1 A. Yes. In addition to executing the affidavit accompanying that Application, I am the
2 Company representative responsible for all discussions with Truman Medical Center
3 (hereinafter "TMC" or "Truman") and Trigen's evaluation of the feasibility of the
4 proposed expansion, including the preparation of Highly Confidential Appendix C to the
5 Application.² Briefly stated, by this Application Trigen is seeking to expand its
6 certificated service area to include a narrowly defined area extending approximately ¾ of
7 a mile to the south from the southern boundary of its currently certificated territory to
8 include what is commonly referred to as the "Hospital Hill" area of Kansas City. This
9 area is more particularly described in NP Schedules BPK-5 and BPK-6 attached hereto.

10
11 As indicated in the Application, Trigen's existing rates and regulations for steam heating
12 service, as contained in the tariffs currently on file with the Commission and as may
13 change from time to time, will apply to service in the new area. As also stated in the
14 Application, Trigen has no pending action or final unsatisfied judgments or decisions
15 against it from any state or federal agency or court within the past three years that involve
16 customer service or rates, and has no annual report or assessment fees that are overdue.

17
18 **OVERVIEW OF PROPOSED EXPANSION**

19 Q. Is there a need for district steam heating service in the proposed expansion area?

20 A. Yes. At the present time, central district steam heating service is neither available nor
21 offered by any regulated or non-regulated entity in the proposed expansion area.

22 Although TMC and other businesses may maintain and operate their own boilers for

² Highly Confidential Appendix C to the Application is attached hereto as HC Schedule BPK-2.

1 purposes of steam generation, Trigen's proposed expansion would provide an alternative
2 energy supply source to meet heating requirements. District steam heating will provide a
3 competitive option to commercial and institutional users of steam, enhancing customer
4 choice and promoting economic development through potentially substantial cost
5 savings. Trigen steam service differs from other commodity energy supplies in that it
6 arrives at the customer's site in finished form (i.e. steam heat), ready for use by the
7 customer. It affords potential customers, such as TMC, the opportunity to leave the
8 business of steam generation to others and focus on their core competencies -- that is,
9 directing resources and efforts to their respective businesses or service enterprises.

10
11 Q. Is Trigen qualified to provide district steam heating service in the proposed expansion
12 area?

13 A. Yes. Trigen has been providing district steam service in its currently certificated service
14 territory for many years. The nature of the steam service to be offered in the expansion
15 area will be identical. Trigen has a proven track record of providing district steam
16 heating service in Kansas City's neighboring Downtown Loop. In sum, Trigen is
17 eminently qualified to provide the service, and it represents the Company's core
18 competency.

19
20 Q. Does Trigen possess the financial ability to provide district steam heating service in the
21 proposed expansion area?

22 A. Yes. As indicated in the highly confidential response to Staff Data Request No. 1
23 (attached as HC Schedule BPK-1), Trigen has access to sufficient capital to efficiently

1 and effectively finance the additional plant investment associated with the proposed
2 expansion.

3
4 Q. Is the proposed expansion economically feasible?

5 A. Yes. The feasibility study accompanying the Application (i.e., highly confidential
6 Appendix C), also attached as HC Schedule BPK-2, demonstrates the expected
7 economics of the expansion. Please be advised that this evaluation considers only TMC
8 as a customer. When and if other potential customers apply for steam service and qualify
9 for addition to the system, the economics of the expansion are likely to further improve.
10 The Company's response to Staff Data Request Nos. 8 and 9 (attached as NP Schedules
11 BPK-3 and BPK-4, respectively) indicate that the expansion is expected to be accretive to
12 the earnings of Trigen and should enhance the Company's future ability to recover its
13 total cost of providing utility service, even under the base case scenario which adds only
14 Truman as a customer.

15
16 Q. In your opinion, will the offering of district steam heating service in the proposed
17 expansion area promote the public interest?

18 A. Yes. Trigen is ready, willing and able to provide cost-competitive district steam heating
19 service in the expansion area. Enhanced customer choice and the opportunity to switch
20 to a less costly energy alternative, such as district steam, is a means to promote economic
21 development in the expansion area. By granting the requested Application, current and
22 future steam users in the expansion area will have the opportunity to choose the provision
23 of steam in its finished form, rather than be limited to either natural gas or electricity as

1 energy sources to support the self-generation of steam for private use. The public interest
2 will be served by allowing interested and qualifying steam users to also consider Trigen
3 as the supply source for economical district steam heating service.
4

5 Beyond the general public interest benefit, the catalyst for the pending Application was a
6 request made by TMC for Trigen to extend its certificated service area in order to provide
7 TMC with district steam service. The hospital has documented substantial cost savings
8 that are expected to be realized through connection to Trigen district steam service.
9 According to TMC's motion to intervene in this proceeding, TMC is a non-profit health
10 care provider that, among other things, serves as a safety net hospital for the indigent
11 citizens of Kansas City, Missouri and Jackson County, Missouri, pursuant to contracts for
12 such services with the City and County. Additionally, TMC is the primary teaching
13 hospital for the UMKC School of Medicine, the UMKC School of Dentistry, the UMKC
14 School of Pharmacy and the UMKC School of Health Sciences.
15

16 TMC's motion to intervene further indicates that an important public interest is being
17 served. Connection to Trigen will result in energy utility savings that will, in turn, help
18 TMC to more cost effectively achieve its mission of delivering vital health care. A
19 significant part of this mission is to provide health care for the neediest citizens among
20 us. Significant operational cost savings that are enabled by connection to Trigen service
21 will help TMC fulfill that critical role, and do so responsibly for the citizens and
22 taxpayers of Kansas City, Missouri and Jackson County, Missouri.
23

1 Q. What circumstances led to Trigen's submission of the Application for the expanded
2 Certificate of Convenience and Necessity?

3 A. Trigen had not actively pursued business opportunities or considered expanding its
4 service territory to the area set forth in the Application for a number of years.
5 Nonetheless, Trigen was generally aware that the largely medical-related institutions in
6 the expansion area consumed considerable volumes of steam and might someday be a
7 good match for Trigen service. In late 2003, TMC contacted Trigen to discuss
8 connection of our respective steam distribution networks, not to take steam service from
9 Trigen, but to potentially augment Trigen's distribution system as a source of steam
10 supply from TMC's steam plant capacity. At that time, however, the discussions between
11 Trigen and TMC did not proceed further.

12
13 In early 2005, TMC initiated steps to restart the earlier discussions regarding the
14 interconnection of our respective steam systems. Discussions between Trigen and TMC
15 ensued from time to time throughout 2005. During those discussions, it became very
16 apparent to TMC that the prospect of Trigen's steam service was a superior alternative to
17 TMC continuing to operate its natural gas-fired plant as the primary heating source for
18 the TMC complex. In the last few months of 2005, Trigen and TMC reached the mutual
19 conclusion that Trigen should file for expansion of its certificated territory for the
20 purposes of providing central district steam heating service to TMC. Shortly after the
21 turn of the New Year 2006, Trigen commenced efforts to prepare and file the
22 Application.

FEASIBILITY OF EXPANSION

Q. What is the impact of the prospective expansion of the territory and addition of TMC upon Trigen's existing customer base?

Q. Without disclosing any of the highly confidential information contained in HC Schedule BPK-2, please summarize the economic benefits Trigen expects from the expansion and subsequent addition of TMC as a steam heat customer.

Q. Referring to the feasibility study designated as HC Schedule BPK-2, which is also contained in the Highly Confidential Appendix C to the Application, has Trigen provided any additional supporting information for review in response to discovery requests submitted by Staff?

1 Trigen's earnings. We certainly welcome any additional questions the Staff might have
2 on this subject and are more than willing to entertain an informal interview setting to
3 further discuss the feasibility study with Staff.
4

5 **CAPACITY & RELIABILITY**

6 Q. Does Trigen have sufficient boiler capacity to meet its existing steam requirements and
7 satisfy the steam requirements of additional customers such as TMC?

8 A. Yes. Trigen's Grand Avenue Plant has gross steam generation capacity of approximately
9 1,250,000 lbs/hour. Between approximately 550,000 and 680,000 lbs/hr of this capacity
10 is capable of being produced through coal combustion, depending upon quality of coal
11 and firing rates necessary for the plant to maintain air permit requirements. Current gross
12 steam demand peaks could range from 250,000 to 300,000 lbs/hr, leaving ample capacity
13 for additional load.
14

15 Q. Does Trigen have sufficient distribution system capacity to meet its existing steam
16 requirements and satisfy the steam requirements of additional customers such as TMC?

17 A. Yes. Trigen's steam distribution network has ample capacity to satisfy the above
18 requirements. Trigen's steam distribution network has in times past reportedly served as
19 many as 400 different accounts with hourly steam distribution demands more than twice
20 those experienced currently. The primary elements of that distribution network remain in
21 place and remain capable of serving increased load.
22

1 Q. How will the extension benefit existing customers in terms of system operations and
2 system reliability?

3 A. System operation will improve because of TMC's extremely favorable load
4 characteristics. While the benefits of TMC's load characteristics are less direct than the
5 economic benefits previously identified, it will produce real economic savings to
6 customers in several respects. First, TMC's load is quite large relative to that of Trigen's
7 district steam heating customers.

8
9 Second, the addition of a high load factor customer with significant annual steam
10 requirements, like TMC, will allow Trigen's boiler capacity to operate in a more
11 favorable and efficient load range during the Company's typical shoulder months and
12 summer season. We project that most, if not all, of the additional steam production will
13 be coal-fired, driving down the percentage of expensive natural gas combusted in
14 Trigen's boilers as well as the average cost of steam production.

15
16 Third, the significant increase in steam throughput will also produce tangible benefits by
17 proportionally increasing the highly efficient production of back-pressure turbine-
18 generated electricity. The increase in self-generated electricity is expected to modestly
19 reduce Trigen's annual purchase requirements and should result in increased sales of low-
20 cost incidental electricity.

21
22 Fourth, as a significant user of steam in off-season or non-heating months, TMC will also
23 help drive down the proportion of distribution steam losses. During the summer months,

1 Trigen experiences a relatively high distribution system line loss, as a percentage of total
2 steam sendout, because Trigen must keep the distribution system adequately pressurized
3 at all times. Increased summer month sales will allow Trigen to more efficiently use its
4 distribution system and reduce the relative line loss percentage.

5
6 Finally, as a customer with a substantial central heating plant, TMC will still have the
7 ability to produce up to 120,000 lbs/hour of steam. Since Trigen plans to connect directly
8 into TMC's steam network, the possibility exists, pending further technical investigation
9 and agreement of the necessary parties, for the TMC heating plant to serve as a leased,
10 backup generation site. In the event of a Trigen service interruption, it is conceivable that
11 TMC's facility could be used to serve TMC's own needs and could potentially backfeed
12 the east radial of Trigen's distribution system, thereby improving reliability for various
13 existing steam heat customers (e.g., the State, City, County and Federal government
14 center of downtown).

15 16 **ENERGY COMPETITION**

17 Q. In your opinion, does Trigen currently face space heating competition in the Downtown
18 Loop and, if so, do you expect similar competition will exist in the proposed expansion
19 area?

20 A. Yes. Trigen competes with both Missouri Gas Energy ("MGE") and Kansas City Power
21 & Light Company ("KCPL"), both intervenors in this proceeding, for space heating load
22 in the existing and proposed service territory. While the significant increase in gas costs
23 in the last few years has resulted in further improvement in Trigen's competitive position

1 relative to MGE, there remains a significant installed base of natural gas heating
2 equipment that may never consider district steam heat due to the cost of conversion or
3 disruption that conversion would cause.

4
5 At the present time, KCPL's commercial space heating rate is the primary price
6 competitor for Trigen service. KCPL's marketers are believed by Trigen to be currently
7 very active, with varying degrees of success, in trying to persuade Trigen's downtown
8 customers to migrate from Trigen district steam heating to electric heating service.
9 However, for a customer such as TMC, which has a very substantial non-heating season
10 steam load, Trigen believes that KCPL cannot economically offer this customer a viable
11 alternative by selling electricity to generate steam heat. To do so would add a great deal
12 of kW demand load to KCPL's network in the summer season. Trigen understands that
13 even under KCPL's own regulatory plan, incremental summer electrical demand loading
14 is to be discouraged, and particularly so if alternatives exist.

15 16 EXPANSION PLANS

17 Q. Does Trigen have any future expansion plans for the proposed certificated area?

18 A. At the present time, other than TMC, Trigen has no specific expansion plans in the new
19 area identified in Appendix A and Appendix B of the Application.³ Nevertheless, Trigen
20 is aware that the new area does contain other potential steam heating customers which
21 may express interest in obtaining steam service from Trigen in the future. However,
22 Trigen has not solicited any of those potential customers and has not received any firm
23 inquiries from such potential customers. While Trigen has not developed any specific

³ Application Appendix A and Appendix B are attached hereto as NP Schedules BPK-5 and BPK-6, respectively.

1 expansion plans for the future, we do recognize and expect that some new customers
2 might be added in the future to the extent that central district steam heating is a viable
3 and economic supply source.
4

5 **SAFETY CONSIDERATIONS**

6 Q. Assuming Commission approval of the pending Application, how will Trigen ensure the
7 safety of existing natural gas distribution mains and other buried utility facilities during
8 the construction and installation of the planned steam mains and other buried steam
9 facilities?

10 A. Steam mains and natural gas mains, as well as other utility facilities and structures, have
11 been installed underground next to each other in Downtown Kansas City for the better
12 part of a century. It is a routine matter to excavate and install steam mains in public
13 rights of way within a few feet of existing gas mains, whether the utilities' mains run
14 parallel with each other or cross one another. Within Trigen's existing service territory,
15 steam line excavation and installation work has been performed periodically wherein new
16 steam mains have been placed in close proximity to existing natural gas facilities. During
17 such installations, Trigen, and/or Trigen's contractor, is obligated to adhere to all
18 applicable safety regulations covering all applicable areas of the work, including OSHA
19 standards for worker safety, which among other requirements demand that sheeting and
20 shoring of excavation cuts and/or sloping of excavation sides are properly implemented.
21 To that end, during all excavation activities, not less than one OSHA-defined "Competent
22 Person" will be on site at all times. Trigen or its contractor, as installer, is also obligated
23 to ensure that proper traffic control measures, as stipulated by MODOT and KCMO,

1 Streets and Traffic are followed. Likewise, welders, equipment operators, laborers, etc.,
2 will all be required to have the necessary qualifications and certificates, as applicable, to
3 perform their particular trade. In addition, engineering controls will be used to maintain
4 structural support of neighboring pipelines and structures, when and if such measures
5 become necessary.

6
7 I would point out that, as it pertains to the construction phase of distribution utility
8 installation in urban public rights-of-way, all work by its very nature takes place in close
9 proximity between and among a host of utility services, not only steam and gas service,
10 but also electric conduits, water and sewer mains, telephone, fiber-optic and other
11 communication structures, among others. Standards for traffic control, excavation,
12 construction activities inside the trench and/or excavated area, backfill and street
13 restoration are well-established and it is the obligation of those responsible for
14 performing the work to adhere to them.

15
16 Q. Specific questions have been raised about existing natural gas facilities in the expansion
17 area, and the effect that Trigen's proposed construction will have on these structures.
18 How does Trigen intend to alleviate these concerns?

19 A. Again, the overriding point to be emphasized is that steam distribution mains and natural
20 gas distribution mains have co-existed, in many cases side-by-side, on virtually every
21 street in which Trigen steam mains are currently routed. 100% of Trigen's existing
22 service territory in the Downtown Loop is shared with both Missouri Gas Energy (and
23 Kansas City Power & Light), and these systems share the rights-of-way within that

1 defined area. Furthermore, there is nothing unusual in the routing of natural gas and
2 steam utilities in close proximity to one another in numerous other cities around the
3 country.

4
5 In Kansas City, this coexistence of steam and natural gas mains has existed for decades.
6 A cursory check of Trigen's distribution drawings, not to mention actual field experience,
7 demonstrates that these utilities are often literally routed side-by-side. Ongoing
8 construction, operation and maintenance of both services occurs regularly, and will
9 presumably continue well into the future. Trigen has no record of the gas utility ever
10 objecting to or taking issue of any sort with steam pipeline construction activity within
11 our currently overlapping certificated service territories. The overwhelming conclusion
12 Trigen reaches is that it is very common to construct steam mains in close proximity to
13 gas mains. This will be the case in the proposed expansion area as well. Trigen's
14 construction will proceed, just as it has historically, in the proposed certificated area,
15 using a standard of due care in instances of interference with all neighboring utilities,
16 including natural gas.

17
18 Q. In its motion to intervene in this proceeding, MGE stated that it has nearly 3.5 miles of
19 cast iron ("CI") mains and nearly 1 mile of polyethylene ("PE") mains located in the
20 proposed expansion area and expressed concern with increased likelihood for breaks or
21 extreme heat that could compromise its existing facilities. Has MGE installed both cast
22 iron mains and PE mains in the Downtown Loop, (an area served by both MGE and
23 Trigen for many years), and what effect do you believe the installation and operation of

1 Trigen steam facilities would have on similar natural gas facilities located in the proposed
2 expansion area?

3 A. To Trigen's knowledge, a significant number of MGE gas mains located in the territory
4 currently in common with Trigen's are CI, but we do not know specific details regarding
5 the type of MGE installed mains. Similarly, we believe there may be PE gas mains
6 within the current common territories, but again we have no specific knowledge of the
7 length or location of such mains. To the extent that Trigen's planned construction and
8 installation of a new steam main may raise specific concerns about potential damage to
9 neighboring natural gas CI mains, Trigen will excavate and install its mains with the
10 industry-standard level of care outlined above.

11
12 Trigen would point out that the specific concern raised about physical integrity of natural
13 gas structures is better asked of and answered by MGE itself, as the natural gas utility.
14 That is, a threshold question is whether the installed gas facilities meet minimum safety
15 standards of their own accord, as construction activity of all types is bound to proceed in
16 the proposed expansion area, whether Trigen's Application is granted or not. In other
17 words, Trigen's street construction activity will create no more potential for harm to
18 existing underground CI facilities than any other utility construction activity, e.g. electric,
19 sewer or water construction. It is a foregone conclusion that these three other services, at
20 least, have and will continue to perform excavation and street construction activities of a
21 very similar nature to what Trigen requests in its Application, albeit as these activities
22 relate to other neighboring utilities' own installation and maintenance requirements.

1 If utility construction activities in public rights-of-way are determined to endanger gas
2 mains in the expansion area, the danger exists at this very moment and the approval of
3 Trigen's Application is immaterial to such a threat. We believe that no incremental threat
4 or danger, beyond that which currently exists to natural gas mains in the expansion area,
5 is posed by Trigen also commencing construction activities. Other utilities are already
6 free to undertake, and do undertake, the very activities that MGE claims pose a danger.
7 Therefore, such danger, be it real or exaggerated, should be addressed by MGE as the
8 owner/operator of such purportedly vulnerable facilities.

9
10 With respect to plastic or PE gas mains that may already be routed in the expansion area,
11 Trigen will use great care to confirm the location of such gas facilities and will attempt to
12 route its steam line at a distance removed from these gas lines. In the event the avoidance
13 of routing in close proximity or crossing of PE natural gas lines is impractical or
14 impossible, Trigen intends to work closely with MGE when and if concerns arise relative
15 to unavoidable interference with such facilities. Trigen will undertake all necessary
16 engineering, design and construction measures to alleviate reasonable concerns and
17 ensure a safe installation to the satisfaction of both parties. We would also make the
18 reasonable request that, in the future, MGE refrain from installing plastic or PE gas lines
19 near any existing steam utilities. This modest request recognizes that Trigen's proposed
20 expansion is quite substantial in relation to the Company's current service territory, but a
21 very small fraction of MGE's existing territory.

1 One final point, while Trigen steam is distributed at high temperature, it is not hot enough
2 to ignite natural gas. Utilities that are already permitted to share the expansion area with
3 natural gas distribution, for example electric T&D facilities, can create enough heat
4 during an unusual failure condition to cause combustion of neighboring gas that may
5 have escaped by some means, however unlikely such an occurrence may be. For that
6 reason, Trigen would argue that no greater hazard is posed by the routing of steam lines
7 near gas lines than the routing of electric lines near gas lines. At the present time, we
8 know of no issue the gas utility has raised with the electric facilities installed in the
9 expansion area.
10

11 Q. You previously indicated that you joined Trigen as a project manager in 1995. Since the
12 time of your employment, have you been responsible for overseeing and managing the
13 installation of buried steam mains in close proximity to MGE's mains?

14 A. Yes.
15

16 Q. In your experience, has the physical condition of MGE's natural gas distribution mains
17 within the Downtown Loop been irreparably damaged such that public safety or the
18 ability of MGE to safely provide natural gas service was jeopardized?

19 A. No. Although it is true that whenever construction or maintenance of underground
20 facilities is undertaken, there is always a small risk that other nearby facilities of any type
21 could be damaged. In some cases, the damage could be caused by inadvertent errors by
22 the construction crew. In other situations, the existing facilities may have been
23 improperly installed, may not have been placed in the right location, or may not have

1 been properly identified. Nevertheless, Trigen is mindful of the various requirements for
2 installing and/ or repairing its steam mains and exercises due care to minimize any
3 damage to underground property, whether natural gas mains, water/ sewer lines, electric
4 facilities or telecommunications cables. Trigen has worked and will continue to work
5 closely with operations personnel of the utilities with which Trigen shares the rights-of-
6 way. This working relationship is pro-active, meaning Trigen and its contractors will
7 advise representatives of neighboring utilities where the opportunity to preempt
8 interference issues exists, and is also reactive, in the sense that we have developed
9 working relationships to resolve issues if they do arise. When and if such events arise,
10 the various utility companies involved work cooperatively to ensure that any damaged
11 facilities are repaired timely, safely and in conformance with standard industry practices.

12
13 Q. Besides the pipeline construction-related concerns, how does Trigen plan to ensure safe
14 operation of its new underground facilities once they are installed, pressurized and placed
15 in permanent, continuing service in the expanded territory?

16 A. Assurance of safe, reliable operation of the new steam main begins with selection of
17 materials, fittings and structures. Trigen will use a pre-insulated piping product that
18 minimizes thermal losses and protects the carrier pipe from water intrusion. It is
19 essentially a pipe within a pipe that contains an integral insulation layer. The carrier pipe
20 within which the steam flows is constructed of either standard weight or seamless steel
21 pipe. There is an annular space and an outer conduit pipe. The connected pipe forms a
22 drainable/dryable system that minimizes energy loss under most any circumstances. The

1 system has excellent thermal characteristics. Given Trigen's steam conditions, the outer
2 temperature of the conduit system should be in the range of 112 degrees Fahrenheit.

3
4 Fittings to compensate for thermal pipe expansion will be either slip joints or externally
5 pressurized bellows joints. Piping anchors will be designed to withstand thermal and
6 pressure thrust loading and will be constructed of concrete and steel. Manholes for
7 personnel access will be constructed per Trigen specifications, consisting of steel-
8 reinforced concrete designed to withstand vehicular street loading. All system low points
9 will be fitted with traps to evacuate condensate. Isolation valves will be located and
10 installed in the system as necessary. In essence, the expansion piping will meet the
11 standards of Trigen's existing distribution network which, as noted above, is in close
12 proximity to existing natural gas mains within Trigen's current territory. With the
13 application of the above general design considerations and the drainable/dryable pre-
14 insulated piping product, the new expansion main will exceed the construction quality of
15 Trigen's legacy steam network.

16
17 Q. To your knowledge and experience, has MGE ever raised an issue with this Commission
18 or otherwise challenged Trigen's methods of installing, operating, maintaining and/or
19 repairing its steam mains in the Downtown Loop as being improper, negligent or causing
20 irreparable harm to MGE's natural gas mains so as to jeopardize public safety?

21 A. No.

FRANCHISES & PERMITS

Q. Other than the Commission's authorization to expand its certificated service territory, does Trigen require any additional franchises or permits from municipalities, counties or other authorities to undertake the proposed construction, other than routine railroad, road crossing and construction permits?

A. No. Trigen has a valid, up-to-date franchise with the City of Kansas City, Missouri to install and operate steam heating facilities, including the proposed expansion area. Prior to commencement of pipeline construction, and following design of projected optimal routing and evaluation of interference issues posed by neighboring utilities, Trigen will file for the necessary municipal street opening, railroad crossing and MODOT crossing permits, as necessary.

Q. Have you had any contact with the representatives from Kansas City, Jackson County, University Physician Associates or TMC that provided the letters of support comprising Appendix E to the Application?

A. Yes. The letters of support contained in Appendix E are consistent with the views expressed during my conversations with those individuals.

Q. Other than the possibility that the intervenors in this proceeding or Staff or the Office of Public Counsel may ultimately oppose Trigen's requested expansion, are you aware of any individual, group or entity that is opposed to Trigen's Application?

A. No.

1 Q. To the best of your knowledge and belief, is the information contained in the Application,
2 including all attachments thereto, true and accurate?

3 A. Yes.

4

5 Q. Does this conclude your prefiled direct testimony?

6 A. Yes.

THIS SCHEDULE HAS BEEN DEEMED
HIGHLY CONFIDENTIAL
IN ITS ENTIRETY

THIS SCHEDULE HAS BEEN DEEMED
HIGHLY CONFIDENTIAL
IN ITS ENTIRETY

Missouri Public Service Commission

Data Request

Data Request No.	0008
Company Name	Trigen-Kansas City Energy Corporation-(Steam/Heat)
Case/Tracking No.	HA-2006-0294
Date Requested	2/16/2006
Issue	General Information and Miscellaneous - Company Information
Requested From	Brian Kirk
Requested By	Phil Williams
Brief Description	Is Trigen willing to keep separate books for the TMC project and customers.
Description	Is Trigen willing to maintain separate books and records or a separate tracking for the costs and revenues regarding the Truman Medical Centers project? If not, why not?
Due Date	3/8/2006

The attached information provided to Missouri Public Service Commission Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the Missouri Public Service Commission Staff if, during the pendency of Case No. HA-2006-0294 before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information.

If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the Trigen-Kansas City Energy Corporation-(Steam/Heat) office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to Trigen-Kansas City Energy Corporation-(Steam/Heat) and its employees, contractors, agents or others employed by or acting in its behalf.

Security	Public
Rationale	NA

With Proprietary and Highly Confidential Data Requests a Protective Order must be on file.

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Response to MPSC Data Request No.: 0008

As indicated in the response to Staff Data Request No. 9, the TMC project is expected to be accretive to the earnings of Trigen KC. Trigen will maintain construction work order documentation supporting the investment in the facility expansion. Operating revenues unique to TMC will also be readily identifiable in the Company's billing records. However, the Company does not intend to implement unique accounting procedures nor incur additional administrative costs to maintain separate books and records tracking the direct and indirect operating expenses (e.g., fuel costs, consumables expense, repair and maintenance work, etc.) associated with this project. Over time, it is anticipated that additional customers may be added to the new facilities such that the difficulty in maintaining separate accounting records will likely increase.

Missouri Public Service Commission

Data Request

Data Request No. 0009
Company Name Trigen-Kansas City Energy Corporation-(Steam/Heat)
Case/Tracking No. HA-2006-0294
Date Requested 2/16/2006
Issue General Information and Miscellaneous - Company Information
Requested From Brian Kirk
Requested By Phil Williams
Brief Description Will Trigen agree that any losses associated with the TMC project must be maintained separately.

Description 1a) Will Trigen agree that any losses associated with the Truman Medical Centers project must be maintained separately from the rest of its current customers? b) If not, please explain why not and provide all reasons why the Company believes the separation between the steam service proposed to be provided to Truman Medical Centers and the rest of Trigen's existing customers is not necessary? 2a) Will Trigen agree that any losses that may result in the provision of steam service to Truman Medical Centers will not be passed on to the Company's existing customers? b) If not, please explain why Trigen would not agree to such treatment and provide all reasons why this would not be appropriate.

Due Date 3/8/2006

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If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the Trigen-Kansas City Energy Corporation-(Steam/Heat) office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to Trigen-Kansas City Energy Corporation-(Steam/Heat) and its employees, contractors, agents or others employed by or acting in its behalf.

Security Public
Rationale NA

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Due Date 3/8/2006

Response to MPSC Data Request No.: 0009

1a) No. The TMC project is expected to be accretive to the earnings of Trigen KC. (See the highly confidential response to Staff Data Request No. 3.) As such, the additional margin generated by this expansion should enhance the Company's opportunity to recover its total cost of providing utility service and partially mitigate the current earnings deficiency. Trigen KC does not anticipate that any material financial or operational advantages would arise from incurring additional costs to segregate this expansion from the remainder of its regulated operations. This expansion will also enable the Company to more efficiently and effectively utilize its existing capacity, reduce its need for purchased electricity and natural gas, and is expected to provide an alternative back-up source of steam in the event of an emergency.

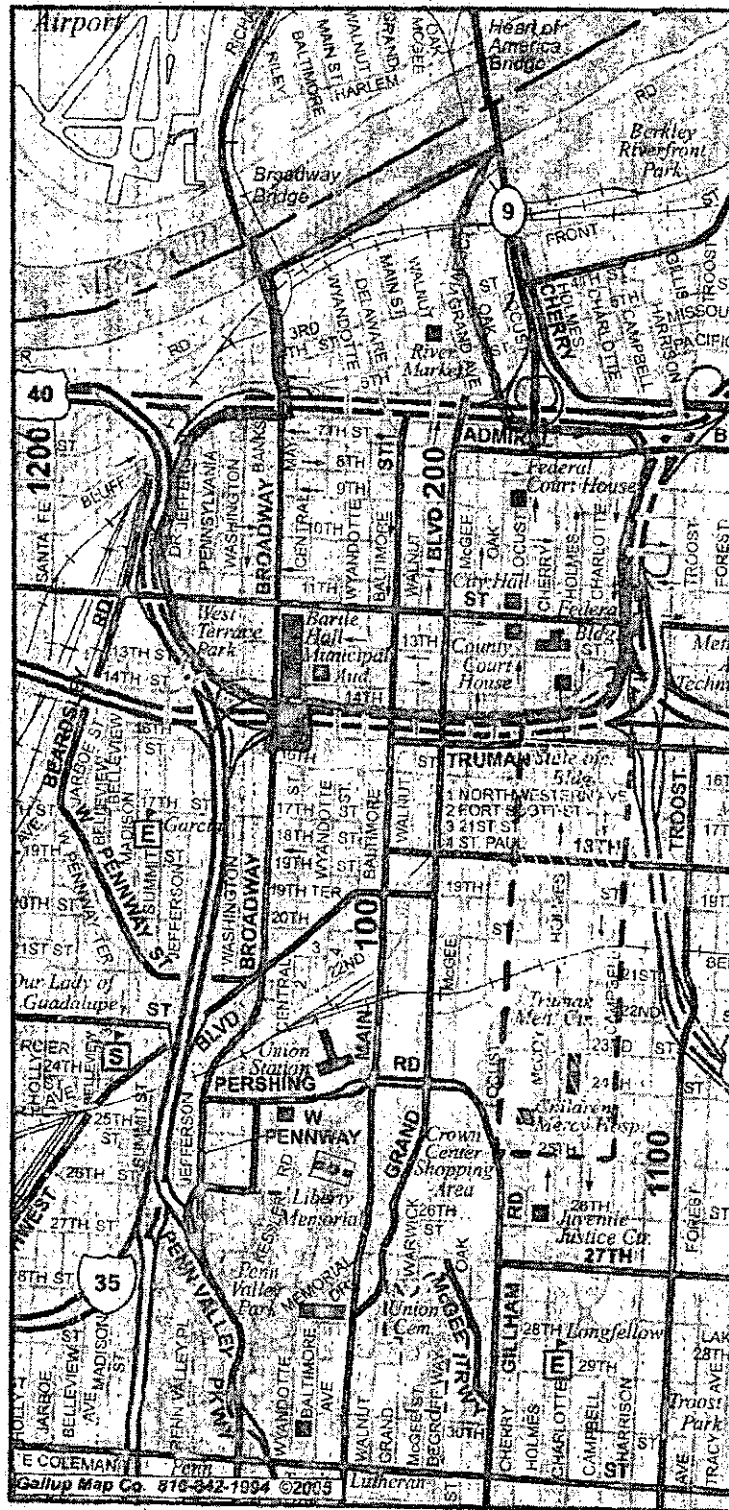
b) See 1a) above.

2 a) No financial losses are expected to result from the provision of steam service to Truman Medical Center. Because Trigen KC is in the business of providing regulated steam service, the Company does not believe that it would be appropriate to segregate any margins derived from the provision of steam service to an individual customer receiving regulated steam service. The proposed transaction is economic for both the Company and TMC. As noted

previously, the expansion is expected to be accretive to the earnings of Trigen KC. In addition, TMC will receive better quality service at a reduced cost, as compared to the current method of customer self-generation.

b) See 2a) above.

APPENDIX A



LEGEND

Existing
Service
Territory

Proposed
New Service
Territory

APPENDIX B

TERRITORIAL DESCRIPTION OF PROPOSED NEW SERVICE AREA

Beginning at a point on the southern boundary of Trigen's existing certificated area on the west line of Locust Street and the north line of Interstate 670;
thence southerly along the west line of Locust Street to the south line of 25th Street;
thence easterly along the south line of 25th Street to the east line of Campbell Street;
thence northerly along the east line of Campbell Street to the intersection of the northerly projection of the east line of Campbell Street and the south line of 11th Street;
thence westerly along the south line of 11th Street to a point on the eastern boundary of Trigen's existing certificated area on the west line of Interstate 70;

All streets and freeways referred to above are as now established and are located within the City of Kansas City, Jackson County, Missouri.

**BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI**

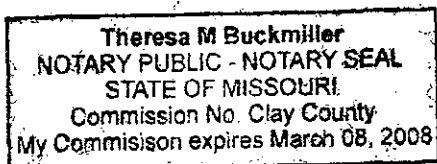
In the matter of the application of Trigen-)
Kansas City Energy Corporation for a)
Certificate of Public Convenience and)
Necessity authorizing it to construct, install,)
own, operate, control, manage and maintain)
a steam heat distribution system to provide)
steam heat service in Kansas City, Missouri,)
as an expansion of its existing certified area.)

Case No. HA-2006-0294

AFFIDAVIT OF BRIAN P. KIRK

STATE OF MISSOURI)
) ss
COUNTY OF JACKSON)

Brian P. Kirk, being of lawful age, on his oath states: that he has participated in the preparation of the foregoing Direct Testimony in question and answer form to be presented in the above case; that the answers in said Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.



A handwritten signature in dark ink, appearing to read "B. P. Kirk".

Brian P. Kirk

Subscribed and sworn to before me this 15 day of March, 2006.

A handwritten signature in dark ink, appearing to read "Theresa M Buckmiller".
Notary