Docket No. RP16-___-000
Exhibit No. ANR-105

UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION

ANR Pipeline Company) Docket No. RP16 -___-000

Summary of the Prepared Direct Testimony of Jeffery D. Keck

Mr. Keck is the Manager, Systems Operations for TransCanada, U.S. Pipelines. His testimony assesses whether fuel costs associated with three system expansion projects qualify for rolled-in rate treatment under the Federal Energy Regulatory Commission's 1999 Policy Statement. Mr. Keck also discusses the system benefits associated with, and the integrated nature of, the Cold Springs 1 expansion project as well as the design requirements to transport gas to and from ANR's storage assets via transportation by others.

Mr. Keck's testimony is divided into three sections. The first section analyzes whether fuel costs associated with three system expansion projects qualify for rolled-in rate treatment. To conduct this analysis, Mr. Keck looked at ANR's annual fuel utilization rate over the last five years to determine the impact these three expansion projects had on fuel rates. This comparative analysis shows that fuel use has either remained the same or has decreased relative to when these projects were initially placed in service. As a result, Mr. Keck concludes that each project's fuel costs should be permitted to be rolled-in to ANR's cost-of-service.

The second section provides a summary of the Cold Spring 1 project in support of ANR's proposal to establish a roll-down mechanism for this facility. The section discusses the integrated nature of the facility with ANR's storage system, as well as the related quantifiable benefits ANR's customers realize from this facility. Finally, the third section discusses certain design requirements necessary for ANR to transport gas to and from its off-system storage fields

in support of ANR witness Pollard's discussion of ANR's transportation contracts on third parties.

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PREPARED DIRECT TESTIMONY OF JEFFERY D. KECK ON BEHALF OF ANR PIPELINE COMPANY

January 29, 2016

Glossary of Terms

ANR	ANR Pipeline Company
ANR Storage	ANR Storage Company
Bcf	Billion cubic feet
Bcf/d	Billion cubic feet per day
CS1	Cold Springs 1
Commission	Federal Energy Regulatory Commission
DTE	DTE Energy
Great Lakes	Great Lakes Gas Transmission Limited Partnership
MMcf	Million cubic feet
MMcf/d	Million cubic feet per day
Michigan Leg	A segment of ANR's SW Mainline extending through Indiana and into Michigan
Northeast Project	An ANR expansion project certificated by the Commission in Docket No. CP89-637-000
Wisconsin 2000 Expansion Project	An ANR expansion project certificated by the Commission in Docket No. CP99-241-000
Wisconsin 2006 Expansion Project	An ANR expansion project certificated by the Commission in Docket No. CP05-364-000
TBO	Transportation by others

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Prepared Direct Testimony of Jeffery D. Keck

Q: What is your name and business address?

A: My name is Jeffery D. Keck. My business address is TransCanada Corporation, 700 Louisiana Street, Houston, Texas 77002.

Q: What is your occupation?

A: I am the Manager, System Operations for TransCanada, U.S. Pipelines. I am filing testimony on behalf of ANR Pipeline Company ("ANR").

Q: Please describe your educational background and your occupational experience as they are related to your testimony in this proceeding.

A: In 1978, I received my Bachelor of Science in Civil Engineering from Michigan State University. Upon graduation, I was employed by ANR as an engineer in the Facility Planning department. I have worked in the natural gas business for over 37 years and have held various engineering and managerial positions in the Facility Planning, Business Development, Operations Control, Gas Control, and System Operations departments. In my current position, I am responsible for and will testify concerning ANR's pipeline system operations as detailed below.

Q: What is the purpose of your testimony in this proceeding?

A: The purpose of my testimony is to assess whether fuel costs associated with three system expansion projects qualify for rolled-in rate treatment under the Commission's 1999 Policy Statement regarding the certification of new interstate pipeline facilities ("1999

Policy Statement"). In addition, I will discuss the system benefits associated with, and the integrated nature of, the Cold Springs 1 ("CS1") expansion project in support of ANR's proposal to establish a roll-down mechanism for CS1. Finally, to support ANR witness Pollard's discussion of ANR's transportation contracts on third parties ("TBO"), I will discuss the design requirements to transport gas to and from ANR's storage assets via TBOs on Great Lakes Gas Transmission Company ("Great Lakes") and DTE Energy ("DTE").

Q: Are you sponsoring any exhibits?

A: Yes. I am sponsoring the following exhibits:

Exhibit No. ANR-106	ANR Northeast Filing Fuel Comparison
Exhibit No. ANR-107	Southwest Mainline Fuel Utilization Graph
Exhibit No. ANR-108	ANR ML-7 Fuel Comparison for Wisconsin 2000 Expansion Project
Exhibit No. ANR-109	Wisconsin Actual Fuel Comparison for Wisconsin 2000 Expansion Project
Exhibit No. ANR-110	ANR ML-7 Fuel Comparison for Wisconsin 2006 Expansion Project
Exhibit No. ANR-111	Wisconsin Actual Fuel Comparison for Wisconsin 2006 Expansion Project
Exhibit No. ANR-112	ANR Pipeline Design Requirements for Transport of Storage Volumes via TBOs

Fuel Roll-in Analysis

Q: Which three system expansion projects have you evaluated regarding rolled-in treatment for fuel?

A: The three projects that I have evaluated include the Northeast Project, the Wisconsin 2000 Expansion Project, and the Wisconsin 2006 Expansion Project, each of which is discussed in greater detail below.

Q: Do any of these three expansion projects currently have incremental fuel rates?

A: No, none currently has associated incremental fuel rates. However, ANR witness Burman is proposing rolled-in rate treatment for the project costs associated with these three expansion projects, and I am therefore conducting analyses related to the rolling in of fuel associated with these projects.

Q: Can you please give a brief overview of the three expansion projects for which ANR is seeking to roll in project costs in addition to the associated compression-related fuel costs?

A: The Northeast Project (Docket No. CP89-637-000) was certificated by the Commission in 1991, and permitted ANR to provide natural gas supply to new cogeneration projects in the Northeast United States.

The Wisconsin 2000 Expansion Project (Docket No. CP99-241-000) was certificated by the Commission in 2000, and permitted ANR to meet the increasing demand for natural gas in the growing northern Illinois and Wisconsin markets.

The Wisconsin 2006 Expansion Project (Docket No. CP05-364-000) was certificated by the Commission in 2005, and permitted ANR to continue to expand to meet customer needs for natural gas in Wisconsin markets.

Q: What rate treatment currently applies to the facilities for which ANR is proposing to roll in the associated compressor fuel costs?

A: With respect to the Northeast Project and the Wisconsin 2000 Expansion Project, the Commission permitted ANR to charge its existing Part 284 maximum recourse rate with no further discussion regarding associated compressor fuel costs, and ANR did not request a predetermination of a rolled-in fuel rate. For the Wisconsin 2006 Expansion Project, the Commission granted a predetermination of rolled-in rate treatment for project costs, but did not specifically discuss associated compressor fuel costs. While ANR

agreed to charge negotiated rates for service on the expansion facilities, the Commission approved ANR's then currently-effective Part 284 rates as the initial rates for service with no specific fuel cost discussion. However, the Commission required ANR to demonstrate, in its next general section 4 rate case, that rolled-in rate treatment would not result in existing customers subsidizing the expansion service.

Q: Can you provide your understanding of the Commission's roll-in policy with respect to compressor fuel costs that is relevant to the facilities ANR is proposing to roll in?

A: My understanding is that the Commission's current approach to determining the appropriateness of rolled-in rate treatment for fuel is closely related to its 1999 Policy Statement. Under the 1999 Policy Statement, the threshold requirement in establishing the public convenience and necessity for an existing pipeline proposing an expansion project is that the pipeline must be prepared to financially support the project without relying on subsidization from its existing customers. While the Commission in its 1999 Policy Statement did not specifically address roll-in of fuel costs, and the Commission historically did not separately identify and analyze fuel costs in its roll-in determination under the 1999 Policy Statement, I understand that in a series of recent certificate orders the Commission has separately analyzed whether to permit pipelines to roll in expansion-related fuel costs to its existing system-wide fuel rate. In these orders, the Commission has stated that if a pipeline seeks to roll in fuel costs, the rate impact of doing so must not result in a subsidization of the expansion shippers by existing shippers.

Q: Does this policy govern the roll-in fuel determination for all of the facilities that ANR is proposing a rolled-in fuel rate?

A: Yes, my understanding is that this policy governs the appropriate fuel roll-in treatment for all three facilities.

Q: What methodology did you use to determine the appropriate fuel pricing of the various expansions?

A: In general, I looked at ANR's annual fuel utilization rate over the last five years to determine the impact these three expansion projects had on fuel rates. As discussed in more detail below, my comparative analysis shows that fuel use has either remained the same or has decreased relative to when these projects were initially placed in service. As a result, existing shippers do not subsidize fuel costs for expansion shippers and therefore ANR should be permitted to roll in these fuel costs.

The Northeast Project

Q: Can you provide a summary of the Northeast Project?

A: As discussed in greater detail by ANR witness Burman, ANR constructed the Northeast Project in two phases. As part of the Northeast Project, ANR added seven compressor units creating 18,550 additional horsepower of compression in the first phase and added an additional two compressor units creating 11,000 additional horsepower of compression in the second phase. The facilities for this project are physically located in ANR's ML-3, ML-5, ML-6, and ML-7 rate zones.

Q: What pricing determination did the Commission make with respect to fuel when it certificated the project?

A: The Commission permitted ANR to charge its then-current Part 284 maximum recourse rate, but did not separately analyze or discuss rates for compressor fuel costs. As a result, shippers utilizing these facilities pay ANR's system fuel rate applicable to each relevant zone.

Q: What methodology did you use to determine the impact of rolling in the fuel costs of the Northeast Project to the existing system-wide fuel rate?

I compared ANR's annual fuel utilization rate on the Northeast Project's specific paths prior to the project going into service to the fuel utilization rates over the last five years on those same paths to determine the impact the expansion project has had on fuel rates. As depicted in Exhibit No. ANR-106, ANR's fuel rate in 1989, the year prior to installation of the Northeast Project, for service from ML-5 to either ML-7 or ML-3 was 3.7 percent, while over the last five years, the fuel percentage rate for both paths has averaged 2.88 percent – and in each year the fuel percentage rate for both paths has been below 3.7 percent.

In addition, the facilities provided significant benefits to all of ANR's shippers that move gas through these segments. For instance, on the Southwest Mainline in zones ML-5 and ML-6, the compressor units added as part of this project are more fuel efficient than the units that were already in operation. As depicted in Exhibit No. ANR-107, because these units have a better fuel utilization rate, they are the units of choice to run when the segment is not at capacity. As a result, when ANR operates within the typical range of flow from 525 million cubic feet per day ("MMcf/d") to 605 MMcf/d, the fuel savings created for all customers by utilizing the newer units versus some of the original units ranges from 4.7 percent to 11.4 percent.

Consequently, existing customers do not subsidize the expansion shippers' fuel use in transport from ML-5 to either ML-7 or ML-3, and in fact benefit from the more efficient operations.

Q: Does the Northeast Project satisfy the roll-in test for fuel?

A: Yes, as demonstrated above, the average fuel rate has decreased across the transportation paths created by the Northeast Project. In addition, the Northeast Project facilities allow for more efficient fuel utilization across the respective zones, producing lower fuel rates

for both expansion and existing customers. As a result, the fuel costs associated with the Northeast Project qualify for rolled-in treatment under the 1999 Policy Statement because, with roll-in, existing shippers will not subsidize the fuel costs associated with the expansion.

Wisconsin 2000 Expansion Project

Q: Can you provide a summary of the Wisconsin 2000 Expansion Project?

A: As discussed in greater detail by ANR witness Burman, ANR constructed the Wisconsin 2000 Expansion Project in two phases. As part of the project, ANR added three compressor units creating 11,500 additional horsepower of compression. All of the facilities are located in ML-7.

Q: What pricing determination did the Commission make with respect to fuel when it certificated the project?

A: ANR proposed to charge discounted Part 284 rates as initial rates for the project. The Commission found that ANR was permitted to do so, but because the proposal would result in a revenue shortfall in the event the facilities were not more fully subscribed, the Commission advised ANR that it would effectively bear the risk of cost under-recovery for these facilities. Consistent with the Commission's order, ANR currently charges its Part 284 rate for service utilizing these facilities. The Commission did not separately analyze or discuss rates for compressor fuel costs. As a result, shippers utilizing these facilities pay ANR's ML-7 fuel rate.

Q: What methodology did you use to determine the impact of rolling the fuel costs of the Wisconsin 2000 Expansion Project into the existing system-wide fuel rate?

A: I utilized the methodology that I described previously with respect to the Northeast Project. Specifically, I compared ANR's annual fuel utilization rate in ML-7 prior to the

Wisconsin 2000 Expansion Project going into service to the ML-7 fuel utilization rates over the last five years to determine the impact this expansion project has had on ML-7 fuel rates. As depicted in Exhibit No. ANR-108, the ML-7 fuel rate prior to the in-service date was 1.17 percent, while over the last five years it has averaged 0.69 percent and in each of those five years was less than 1.17 percent. Thus, recent actual experience indicates that fuel rates in ML-7 have been lower subsequent to the addition of these facilities.

Q: Did you assess fuel rates in Wisconsin on a stand-alone basis as well?

A: Yes, I additionally reviewed Wisconsin fuel usage as a percentage of the total annual volume moved into or through the state of Wisconsin to evaluate the impact of Wisconsin 2000 Expansion Project compression within the state. Exhibit ANR-109 shows that Wisconsin fuel utilization in 2000 was 0.61 percent, while over the last five years it has averaged 0.50 percent and was below 0.61 percent each year. Consequently, this evidence supports the above conclusion that existing shippers do not subsidize fuel use for customers using these expansion facilities.

Q: Does the Wisconsin 2000 Expansion Project satisfy the roll-in test for fuel?

A: Yes, as demonstrated above, the fuel rate in the ML-7 zone prior to the Wisconsin 2000 Expansion Project was higher than the average fuel rate over the last five years. As a result, fuel costs associated with this expansion qualify for rolled-in treatment under the 1999 Policy Statement because, with roll-in, existing shippers will not subsidize the fuel costs associated with the expansion.

Wisconsin 2006 Expansion Project

Q: Can you provide a summary of the Wisconsin 2006 Expansion Project?

A: As discussed in greater detail by ANR witness Burman, the Wisconsin 2006 Expansion Project created an additional 168,241 dekatherms per day of transportation capacity. As part of this project, ANR added two new compressor units creating 22,990 additional horsepower of compression. All of the facilities are located in ML-7.

Q: What pricing determination with respect to fuel did the Commission make when it certificated the project?

A: The Commission granted ANR's request for rolled-in rate treatment and permitted ANR to charge its Part 284 rate as a recourse rate for service. However, the Commission did not separately analyze or discuss rates for compressor fuel costs. As a result, shippers utilizing these facilities pay ANR's ML-7 fuel rate.

Q: Does the Commission's certificate order for this project require a roll-in analysis?

A: In its certificate order, the Commission required ANR in any future section 4 rate case to demonstrate that the rolled-in rate treatment will not result in its present customers subsidizing the expansion service. The Commission, however, did not discuss making such a showing with respect to compressor-related fuel costs.

Q: What methodology did you use to determine the impact of rolling in the fuel costs of the Wisconsin 2006 Expansion Project to the existing system-wide fuel rate?

A: As with the two projects discussed above, I examined ANR's annual fuel utilization rate in ML-7 prior to the Wisconsin 2006 Expansion Project going into service to ML-7 fuel utilization rates over the last five years to determine the impact this expansion project has had on ML-7 fuel rates. As depicted in Exhibit No. ANR-110, the ML-7 fuel rate prior to installation was 0.99 percent while over the last five years it has averaged 0.69 percent. Thus, the addition of these facilities resulted in a lower average fuel rate for all shippers.

Q: Doesn't the higher fuel rate in 2015 indicate that fuel rates have actually increased subsequent to the Wisconsin 2006 Project being placed into service?

A: No, the 2015 fuel rate for ML-7 was strongly influenced by an extremely cold 2013/2014 winter that caused very high transport on ANR's Michigan Leg within ML-7 during both the winter as well as the subsequent summer when customers transported significant volumes to refill their storage accounts. The Wisconsin 2006 Project is unrelated to the ML-7 Michigan Leg, and therefore did not contribute to the increase in ML-7 fuel rates ultimately attributable to the 2013/2014 winter loads.

Q: Did you assess fuel rates in Wisconsin on a stand-alone basis?

A: Yes, I additionally reviewed Wisconsin fuel usage as a percentage of the total annual volume moved into and or through the state of Wisconsin to evaluate the impact of Wisconsin 2006 Project compression within the state. Exhibit No. ANR-111 shows that Wisconsin fuel utilization in 2006 was 0.57 percent, while over the last five years it has averaged 0.50 percent and was below 0.57 percent in each year. Consequently, this evidence supports the above conclusion that existing shippers do not subsidize fuel use for these expansion facilities.

Q: Does the Wisconsin 2006 Expansion Project satisfy the roll-in test for fuel?

A: Yes, as demonstrated above, the fuel rate in the ML-7 prior to the Wisconsin 2006 Expansion Project was higher than the average fuel rate over the last five years. As a result, fuel costs associated with this expansion qualify for rolled-in treatment under the 1999 Policy Statement because, with roll-in, existing shippers will not subsidize the fuel costs associated with the expansion.

System Benefits of Integrated Cold Springs 1 Storage Facility

Q: What rate treatment is ANR proposing for the Cold Springs 1 Facility?

A: As described by ANR witnesses Barry and Roscher, ANR is proposing incremental rates for CS1 as well as a roll-down mechanism to be applied to the incremental CS1 rates.

Q: Can you provide a summary of the original Cold Springs 1 Project?

A: With the Cold Springs 1 Project, ANR acquired the CS1 storage field located in Kalkaska County, Michigan from ANR Storage Company ("ANR Storage"), and converted it for the provision of storage services. This resulted in ANR increasing its certificated storage capacity by 14.7 billion cubic feet ("Bcf") while permitting 200 MMcf of deliverability. The capacity was later increased to 15.33 Bcf. In addition to the storage field, ANR also acquired a 40 percent ownership interest in an existing 2.4 mile, 24-inch jurisdictional lateral pipeline that connects the storage field to a 36-inch pipeline jointly-owned by ANR and ANR Storage, 700 feet of 20-inch pipeline from Cold Springs 1 to the Cold Springs 12 lateral, six new injection/withdrawal wells, and a compressor station for Cold Springs 1. The facility is located in ML-7 and was certificated on May 31, 2007.

Q: Are these facilities fully integrated with ANR's system operations and do they provide improved service to ANR's existing customers?

A: Yes, the facilities are physically and operationally integrated into ANR's system operations and as such the capacity is fully available to all shippers on ANR's system. These facilities enabled ANR to meet changing requirements of its existing system customers as well as render additional services to new customers. The capacity is utilized as part of ANR's integrated storage complex which allows ANR to optimize the capabilities of the various fields it operates to offer flexible and reliable service in order to meet customer needs, as described in greater detail by ANR witness Pollard. The addition of the CS1 storage field provides ANR with more flexibility early in the injection and withdrawal season when individual field capabilities exceed demand. This

flexibility allows ANR to more efficiently inject or withdraw gas to sustain overall efficiency for as long as possible. Having the additional field available also provides flexibility during the seasonal turn-around of the fields. It also adds compression diversification in the sense that compression is needed more in the summer for injection rather than withdrawal, which is counter to many of ANR's other storage fields which require more compression during the winter withdrawal season. Finally, it is a high pressure field for which there is a minimal requirement to fully cycle the field during warm winters to protect the field's integrity, which enables ANR to more fully cycle those fields that do need to be cycled to protect the field's integrity.

Q: Are these benefits quantifiable?

A: Yes, CS1 has a withdrawal capability of 200 MMcf/d which can be sustained for more than 61 days without any loss of capability. This is a capability that several of ANR's fields do not have. This sustainability provides ANR with the capability to provide additional flexibility in responding to customers' market demands.

<u>Design Requirements for Transportation to and from ANR's Off-System Storage</u>

Q: Does ANR operate any off-system storage assets?

A: Yes, as discussed in more detail by ANR witness Pollard, ANR has several off-system storage assets located in Michigan that it operates as part of its integrated storage network.

Q: Can you provide a description of the capacity design requirements necessary for ANR to transport gas to and from its off-system storage fields?

A: ANR has off-system storage fields located behind the Muttonville, Deward, Chester, and Kalkaska meters. Each of these meters, and the associated interconnection with either Great Lakes or DTE, is capable of both receiving and delivering gas. Exhibit No. ANR-

112 shows the required meter obligations for each of these interconnections on a capacity design basis during both the summer and winter seasons. ANR holds various transportation contracts with Great Lakes and DTE to move gas between ANR's mainline system and these off-system storage assets. Exhibit No. ANR-112 shows the volumes associated with these contracts for both the summer and winter seasons. The interconnection obligations and the capacity associated with the transportation contracts match up and allow ANR to transport the necessary volumes to and from the off-system storage fields to meet its firm customer obligations.

Q: Does this conclude your testimony?

A: Yes, it does.

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ANR Pipeline Company) Docket No. RP16-____-000

State of Texas)
) ss.
County of Harris)

AFFIDAVIT OF JEFFERY D. KECK

Jeffery D. Keck, being first duly sworn, on oath states that he is the witness whose testimony appears on the preceding pages entitled "Prepared Direct Testimony of Jeffery D. Keck"; that, if asked the questions which appear in the text of said testimony, he would give the answers that are therein set forth; and that affiant adopts the aforesaid testimony as Jeffery D. Keck's sworn testimony in this proceeding.

Jeffery D. Keck

SWORN TO AND SUBSCRIBED BEFORE ME THIS 28th DAY OF January, 2016

NOTARY PUBLIC STATE OF TEXAS
CHARLOTTE SMITH
My Commission Expires
January 13, 2019

Charlotte Smith
Notary Public
My Commission Expires: