

EXPERT AFFIDAVIT OF GREGORY M. LANDER

PERSONALLY APPEARED before me, Gregory M. Lander, who, being first duly sworn did depose and say as follows:

I. Introduction

1. My name is Gregory M. Lander. My business address is 83 Pine Street, Suite 101, West Peabody, MA 01960.
2. I am President of Skipping Stone, LLC (“Skipping Stone”). From 1984 to present, I have maintained a deep familiarity with a wide range of pipeline transportation issues, beginning with access to pipeline capacity to make competitive sales, resolution of the pipeline take-or-pay contracting regime, pipeline affiliate marketer concerns, restructuring of the pipelines from merchants to transporters and thereafter, and definitions of what constituted a pipeline capacity “right” for the purposes of formulating the then newly commenced capacity release and capacity rights trading business process. I continue to be involved in nearly all facets of the capacity information and trading business as part of my duties at Skipping Stone. In addition, I have been the lead principal on all 50+ pipeline and storage mergers and acquisitions transactions as well as all pipeline and storage facility expansion projects for which Skipping Stone has been retained by potential purchasers and project sponsors to provide economic due diligence consulting and market analysis. In addition, I have testified before, participated in or assisted with proceedings before, state public utilities commissions and/or their staffs in the states of Maine, Massachusetts, Missouri, Virginia, South Carolina, California, Rhode Island and New Jersey with respect to infrastructure matters, integrated resource plans, and fuel cost recovery proceedings. Please refer to Exhibit __ (GL-1), which contains my current CV.
3. I graduated from Hampshire College in Amherst, Massachusetts, in 1977, with a Bachelor of Arts degree. In 1981, I began my career in the energy business at Citizens Energy Corporation in Boston, Massachusetts (“Citizens Energy”). I became involved in the natural gas business of Citizens Energy in 1983. Between 1983 and 1989, I served as Manager, Vice President, President and Chairman of Citizens Gas Supply Corporation (a subsidiary of Citizens Energy).

Since 1994, I have also been a Services Segment board member of the Gas Industry Standards Board (“GISB”) and its successor organization, the North American Energy Standards Board (“NAESB”). During the period 1994 to 2002, I served as a Chairman of the Business Practices Subcommittee, the Interpretations Committee, the Triage Committee, and several GISB/NAESB Task Forces. I am currently a Board Member of NAESB and have served continuously in that capacity since 1997.

Skipping Stone, Inc. acquired TransCapacity in 1999, and since that time I have headed up Skipping Stone’s Energy Logistics practice, where my specialization has been interstate pipeline capacity issues, information, research, pricing, acquisition due diligence and planning. In 2001, Skipping Stone launched CapacityCenter.com, a pipeline capacity information service. In 2004, Skipping Stone was acquired by

Commerce Energy Group, a national retail energy services provider. In 2005, I was appointed President of Skipping Stone, which operated as a wholly owned subsidiary of Commerce Energy Group. In 2008, I purchased substantially all of the assets of Skipping Stone and now operate essentially the same business as before the Commerce Energy transaction as Skipping Stone, LLC.

4. I started and ran an energy consulting firm, Landmark Associates, from 1989 to 1993, during which time I consulted on numerous pipeline open access matters, a number of Federal Energy Regulatory Commission (“FERC”) Order No. 636 rate cases, pipeline certificate cases, fuel supply and gas transportation issues for independent power generation projects, international arbitration cases involving renegotiation of pipeline gas supply contracts, and natural gas market information requirements cases (FERC Order Nos. 587 *et seq.*). In 1993, I founded TransCapacity LP, a software and natural gas information services company.
5. I have filed testimony before the Massachusetts Department of Public Utilities, the Maine Public Utilities Commission, the Virginia Corporation Commission, the Missouri Public Service Commission, the California Public Utilities Commission, and the South Carolina Public Service Commission. I have also filed testimony in several FERC proceedings. Please refer to Exhibit GL-1, which contains a full list of case names and docket numbers in which I have participated as a witness.
6. I am submitting this affidavit on behalf of EDF. This affidavit and its accompanying exhibits were prepared by me or under my direct supervision and control, and I am familiar with all of the matters addressed herein.

II. Analysis of Gas Capacity in New Jersey

7. I have reviewed the New Jersey Board of Public Utilities’ Notice creating Docket No. GO19070846, In the Matter of the Exploration of Gas Capacity and Related Issues.
8. I have reviewed the slides that Levitan & Associates presented at the October 1 meeting for this docket, and I have reviewed the complete report from which those slides were provided: Levitan & Associates, *Availability of Natural Gas Capacity to Meet New Jersey LDC Customer Needs*, prepared for New Jersey Natural Gas (June 10, 2019) (“Levitan Report”).
9. I conducted an analysis of the pipeline capacity that exists to deliver natural gas to shippers in New Jersey. This analysis included an assessment of historic use of the gas capacity infrastructure and the contracts currently in effect for use of pipeline capacity with primary delivery rights to locations in New Jersey as well as gas capacity available to and based upon my analysis used to deliver gas to New Jersey. As part of this analysis, I compared my results to the results and conclusions in the Levitan Report. Please refer to Exhibit GL-2, which contain charts summarizing my analysis.
10. The conclusions from my analysis are detailed within Environmental Defense Fund’s corresponding comments.

**BEFORE THE
NEW JERSEY ENERGY MASTER PLAN COMMITTEE**

AFFIDAVIT

The undersigned person, Greg Lander, on his oath, deposes and says:

I, Gregory M. Lander, of full age and upon my oath, depose and say:

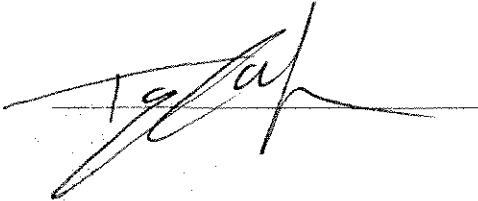
1. I am the President of Skipping Stone, LLC and I work for Environmental Defense Fund as a consultant on a range of natural gas sector issues.

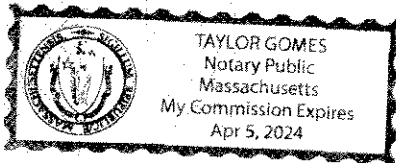
2. I have prepared the attached expert affidavit and certify that the statements set forth therein are true and accurate to the best of my knowledge and belief.



GREGORY M. LANDER

Sworn and subscribed before me
this 21st day of October, 2019





Greg Lander, President
Skipping Stone LLC

Professional Summary:

As President of Skipping Stone Inc., Greg Lander is responsible for Strategic Consulting in the mergers and acquisition arena with numerous clients within the energy industry. Generally recognized in the energy industry as an expert, he has advised and/or given testimony at numerous Federal Energy Regulatory Commission (FERC), State, arbitration, and legal proceedings on behalf of clients and has advised as well as initiated standards formation before the Gas Industry Standards Board (GISB) (predecessor to the North American Energy Standards Board (NAESB)). As Founder, President, and Chief Technology Officer of TransCapacity Limited Partnership, he was responsible for conceiving, planning, managing, and designing Transaction Coordination Systems utilizing Electronic Data Interchange (EDI) between trading partners. As a founding member of GISB, he assisted in establishing protocols and standards within the Business Practices, Interpretations and Triage Subcommittees.

Professional Accomplishments:

- Handled all Due Diligence for purchaser (Loews Corp) in acquisitions of two interstate pipelines, one natural gas storage complex, and ethylene distribution and transmission systems (Texas Gas Transmission, Gulf South Pipeline, Petal Storage, Petrologistics, and Chevron Ethylene Pipeline) most in excess of \$1 Billion. Developed purchaser's business case model, including rate/revenue models, forward contract renewal models, export basis modeling and revenue models, and operating cost and capex models. Coordinated Engineering and Environmental Due Diligence Teams integrating findings and assessments into final Diligence Reports.
- Assisted major electric retailer in 9 states with business case development for entry into North Eastern U.S. Commercial & Industrial natural gas marketing business. Identified market share of incumbents; retail registration process, billing processes; utility data exchange rules and procedures and developed estimates of addressable market by utility.
- Handled all economic Due Diligence for purchaser of large minority stake in Southern Star Gas Pipeline. Developed purchaser's business case model, including rate/revenue models and forward contract renewal models, assessed potential competitive by-pass of asset located in "pipeline alley", developed revenue models and operating cost and capex models. Coordinated Engineering, Pipeline Integrity, and Environmental Due Diligence Teams integrating findings and assessments into final Diligence Reports.
- Developed post-acquisition integration plans for inter-operability and alterations to system operations to take advantage of opportunities presented by

synergistic facilities' locations and functions and complimentary contractual requirements. Implementation of plan resulted in fundamental changes to systems operations and improvement in systems, net revenues, capacity capabilities, and facilities utilization.

- Handled all economic analysis, modeling, and systems capability due diligence for potential purchaser in several preliminary or completed yet un-consummated pre-transaction investigations involving Panhandle Eastern, Northern Border, Bear Paw, Florida Gas, Transwestern, Great Lakes, Guardian, Midwestern, Viking, Southern Star, Columbia Gas, Midla, Targa (No. Texas), Ozark, ANR, Falcon Gas Storage, Tres Palacios, Rockies Express, Norse Pipelines, Southern Pines, Leaf River, LDH (Mont Belvieu), Kinder Morgan Interstate, Trailblazer, Rockies Express and South Carolina Gas Transmission.
- Post Texas Gas Transmission and Gulf South Pipe Line acquisitions, assisted with all investigations involving assessments and proposals for realizing potential synergies with/from asset portfolio; rate case strategy development and alternate case development; and strategies around contract renewal challenges.
- Headed up due diligence team in acquisition of multi-state retail (residential) natural gas and electric book by Commerce Energy.
- Headed up due diligence team in acquisition of multi-state retail (C&I) natural gas book by Commerce Energy.
- Served as lead consultant for consortium of end-users, Local Distribution Companies, Power Generators, and municipalities in several major FERC Rate Cases, service restructuring, and capacity allocation proceedings involving a major Southwestern U.S. Pipeline.
- Served as lead consultant and expert witness for consortium of end-users, Local Distribution Companies, Power Generators, and municipalities in major FERC rate case under litigation involving decades-long disputes over service levels, cost allocation, and rate levels.
- Served as lead consultant for consortium of end-users and municipalities in major FERC rate case involving implementation of proposed rate design, cost allocation, and rate level changes.
- Expert witness in numerous gas and electric utility rate cases; integrated resource plans; litigated service offerings and cost approval and allocation proceedings for public interest clients. Controversies, often involving hundreds of millions to billions of dollars over cases' time horizons, are common.
- Developed and critiqued Rate Case Models for several pipeline proceedings and proposed proceedings (as consultant variously to both pipeline and shippers). Activities included modeling (and critiquing) new services' rates, costs, and revenues; responsibilities included development of various alternative cost allocation/rate designs and related service delivery scenarios.

- Handled all market assessment, forward basis research, and transportation competition modeling for several proposed major pipelines and laterals, including two \$1 Billion+ Greenfields projects that went into construction and operation providing new outlets for growing southwestern shale production. (Gulf Crossing and Fayetteville Lateral).
- Assessed supply and demand balance for Southwestern US (OK, TX, Gulf Coast and LA) including assessment of future demand and supply displacement associated with West Texas wind power development and its likely impact on pipeline export capacity from region.
- Assessed supply and demand balance for Northeast to Gulf Coast capacity additions including assessment of Gulf Coast demand and export growth and its likely impact on forward basis.
- Assessed start-up gas supply needs for Appalachian coal fired power plant, resulting in installation of on-site LNG storage and gasification to address lack of enough firm pipeline capacity to meet need.
- Assessed installed and projected wind-turbine capacity in ERCOT and its eventual impact on Texas electric market as wind power output approaches minimum ERCOT load levels.
- Designed and developed EDI based data collection system, data warehouse and web-based delivery system (www.capacitycenter.com) for delivering capacity data collected from pipelines to shippers, marketers, traders, and others interested in capacity information to support business operations and risk-management requirements.
- Assisted client in developing proposals to increase pipeline capacity responsiveness and proposed market fixes that would create price signals around sub-day non-ratable flows, including rate proposals, sub-day capacity release markets, and measures to address advance reservation of capacity for electric generation fuel to meet sub-day generation demands.
- Developed “universal capacity contract” data model for storage of all interstate capacity contract transactions from all interstates in single database.
- Led design effort culminating in FERC-mandated datasets defining pipeline capacity rights, (including receipt capacity, mainline capacity, delivery capacity, segmentation rights, in and out of path capacity rights), Operationally Available Capacity, Index of Customers, and Transactional Capacity Reports (through GISB).
- Assembled consortium of utilities to investigate and develop large high-deliverability salt storage cavern in desert southwest (Desert Crossing). As LLC’s Acting Manager, was responsible for developing business case and economic models; handling all partner issues and reporting; coordinating all field engineering, facilities design, planning and siting; and managing all environmental, legal, engineering and regulatory activities. Wrote FERC Tariff. Brought project to NEPA Pre-Filing Stage and conducted non-binding Open

Season, as well as assisted with prospective shipper negotiations. Project cancelled due to 2001 “California Energy Crisis” and contemporaneous Enron and energy trading sector implosions.

- Designed comprehensive retail energy transaction and customer acquisition data model, process flow, and transaction repository for web-based customer acquisition and customer enrollment intermediary.
- Experienced in negotiation and drafting (from both seller side and buyer side) of firm supply, firm transportation, firm storage, and power supply and capacity agreements for numerous entities including project financed IPPs and for new greenfield pipeline and expansion of storage system.
- Provided market entry assessment for large international manufacturing and service company seeking to enter U.S. micro-grid, combined heat and power, and integrated solar, gas & battery markets.
- Conducted interstate pipeline capacity utilization analysis for New England following winter of 2013/2014 price fly-up.
- Conducted PJM East interstate gas pipeline capacity utilization and comparative analysis between pipelines with standard NAESB nominating cycles versus those with near hourly scheduling practices.
- Conducted requirements analysis for several firms pursuing software selection of energy transaction systems.
- Instrumental in the formation of the GISB. Member of industry team that lead the development of the proposal for and bylaw changes related to the formation of NAESB.
- Provided support to numerous clients and clients’ attorneys in disputes involving capacity contracts, capacity rights allocations, tariffs, rate cases, intellectual property rights cases, and supply contract proceedings as both up-front and behind the scenes expert.

Associations and Affiliations:

Longest serving Member of Board of Directors for NAESB and prior to that GISB – 23 years.

GISB Committees: Former Chairman, Business Practices Subcommittee – drafted approximately 450+ initial industry standards that are now codified FERC regulations (Order 567); Former Chairman, Interpretations Subcommittee – drafted and led adoption process for first 50+ standards interpretations; Former Chairman, Triage Subcommittee; Title Transfer Tracking Task Force; Order 637 GISB Action Subcommittee; and industry Common Codes Subcommittee. Currently member of NAESB Wholesale Gas Quadrant Executive Committee and of NAESB Parliamentary Committee

Past and Affiliations and Associated Accomplishments:

1981-1989: One of five initial employees of Citizens Energy Corporation, Boston Mass. Responsible for starting and growing Citizens Gas Supply, one of the first independent gas marketers of the early 1980's, into \$200MM+ annual operation. Successfully lobbied for pipeline Open Access (Orders 436 and 636), introduction of pipeline Affiliated Marketer rules of conduct (Order 497), and Open Access to pipeline operational information (Order 563).

1989-1993: Independent Consultant - Natural Gas Projects, Pipeline Rate Cases, Project Financed Contract negotiations, and Independent Power markets

1993 – 1999: Founder and President, TransCapacity Service Corp – Software products and services related to pipeline capacity trading, nomination, and contracting. Raised \$17 MM from industry player to establish TransCapacity. Successfully lobbied for Pipeline restructuring and formation of capacity release market (Order 636). Sold to Skipping Stone.

1999 – 2004: Principal and Partner, Skipping Stone – Energy market consultants

2004 – 2008: President of Skipping Stone following purchase of Skipping Stone by Commerce Energy, Inc.

2008: Repurchased Skipping Stone from Commerce Energy, Reformulated Skipping Stone as LLC with Peter Weigand

2008 to Present: President and Partner, Skipping Stone. In addition to handling book of clients, responsible for all Banking, Accounting, Operations, Risk Management and contract matters for Skipping Stone.

Education:

1977: Hampshire College, Amherst, MA; Bachelor of Arts

Publication:

2013: Synchronizing Gas & Power Markets - Solutions White Paper

Expert Testimony of Gregory M. Lander

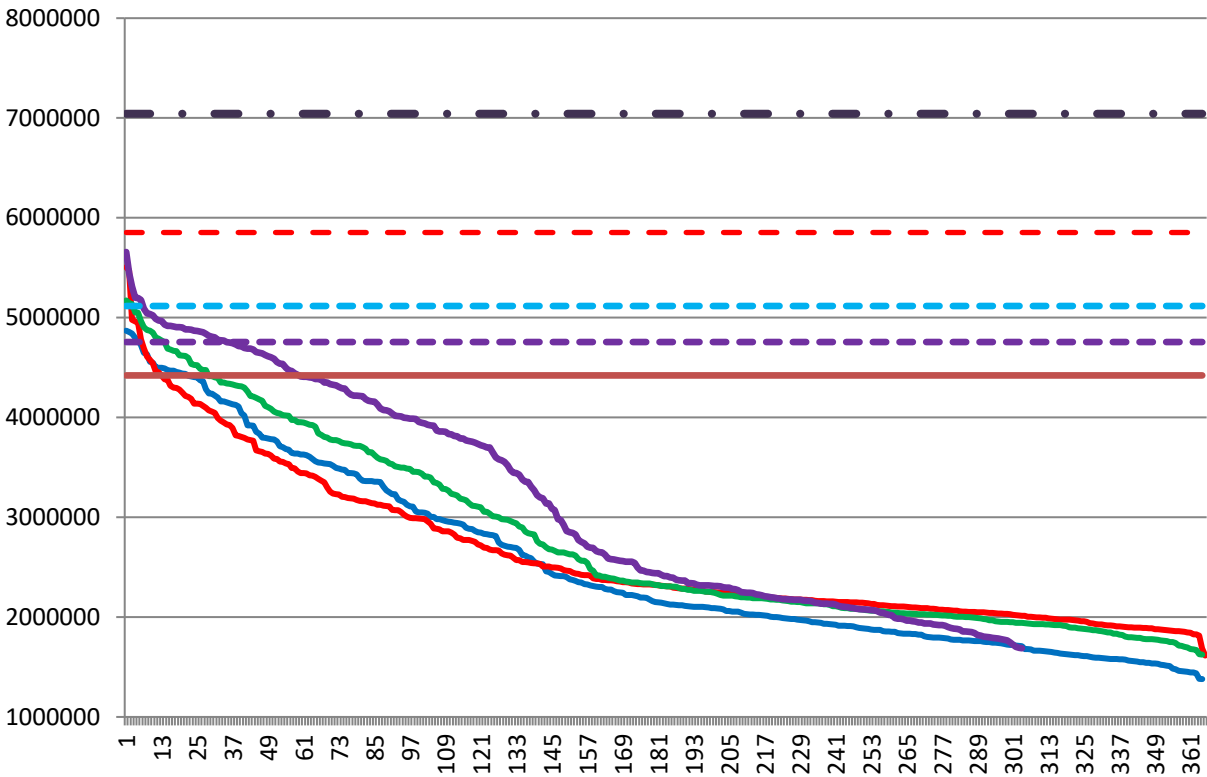
Name of Case	Jurisdiction	Docket Number	Date
El Paso Natural Gas Company	Federal Energy Regulatory Commission	RP04-251-000	May 3, 2004 (Testimony)
El Paso Natural Gas Company	Federal Energy Regulatory Commission	RP08-426-000	May 19, 2009 (Answering Testimony) June 2, 2010 (Supplemental Answering Testimony)
El Paso Natural Gas Company	Federal Energy Regulatory Commission	RP10-1398-000	June 28, 2011 (Answering Testimony) March 4, 2014 (Answering Testimony)
Petition of Boston Gas Company and Colonial Gas Company, each d/b/a National Grid for Approval by the Department of Public Utilities for a Firm Transportation Contract with Algonquin Gas Transmission Company	Massachusetts Department of Public Utilities	13-157	December 12, 2013 (Direct Testimony)
Petition of Boston Gas Company d/b/a National Grid for Approval by the Department of Public Utilities of a twenty-year Firm Transportation Agreement with Tennessee Gas Pipeline Company, involving an expansion of Tennessee's interstate pipeline running from Wright, New York to	Massachusetts Department of Public Utilities	15-34	June 5, 2015 (Direct Testimony)

Dracut, Massachusetts, known at the Northeast Energy Direct Project			
Petition of Bay State Gas Company d/b/a Columbia Gas of Massachusetts for Approval by the Department of Public Utilities of a twenty-year Firm Transportation Agreement with Tennessee Gas Pipeline Company, involving an expansion of Tennessee's interstate pipeline running from Wright, New York to Dracut, Massachusetts, known at the Northeast Energy Direct Project	Massachusetts Department of Public Utilities	15-39	June 5, 2015 (Direct Testimony)
Petition of The Berkshire Gas Company for Approval of a Precedent Agreement with Tennessee Gas Pipeline Company, LLC, pursuant to G.L. c. 164, § 94A	Massachusetts Department of Public Utilities	15-48	June 5, 2015 (Direct Testimony)
Investigation of Parameters for Exercising Authority Pursuant to Maine Energy Cost Reduction Act, 35-A M.R.S.A. Section 1901	Maine Public Utilities Commission	2014-00071	July 11, 2014 (Direct Testimony)
Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 <i>et seq.</i>	Virginia Corporation Commission	PUR-2017-00051	August 11, 2017 (Direct Testimony)
In the Matter of the Laclede Gas Company's Request to Increase Its Revenues for Gas Service In the Matter of the Laclede Gas Company	Missouri Public Service Commission	File No. GR-2017-0215 File No. GR-2017-0216 (Consolidated)	September 8, 2017 (Direct Testimony) November 21, 2017 (Surrebuttal Testimony)

d/b/a Missouri Gas Energy's Request to Increase Its Revenues for Gas Service			
<p>Application of San Diego Gas & Electric Company (U902M) for Authority, Among Other Things, to Update its Electric and Gas Revenue Requirement and Base Rates Effective on January 1, 2019.</p> <p>Application of Southern California Gas Company (U904G) for Authority, Among Other Things, to Update its Gas Revenue Requirement and Base Rates Effective on January 1, 2019.</p>	California Public Utilities Commission	<p>Application 17-10-007</p> <p>Application 17-10-008 (Consolidated)</p>	<p>May 14, 2018 (Direct Testimony)</p> <p>June 8, 2018 (Rebuttal Testimony)</p>
Application of Virginia Electric and Power Company to revise its fuel factor pursuant to § 56-249.6 of the Code of Virginia	Virginia State Corporation Commission	PUR-2018-00067	June 14, 2018 (Direct Testimony)
Application of Southern California Gas Company (U 904 G) and San Diego Gas & Electric Company (U 902 G) Regarding Feasibility of Incorporating Advanced Meter Data Into the Core Balancing Process	California Public Utilities Commission	Application 17-10-002	July 2, 2018 (Direct Testimony)
Virginia Electric and Power Company's Integrated Resource Plan filing pursuant to Va. Code § 56-597 <i>et seq.</i>	Virginia Corporation Commission	PUR-2018-00065	August 13, 2018 (Direct Testimony)
In the Matter of Constellation Mystic Power, LLC	Federal Energy Regulatory Commission	ER18-1639	<p>August 23, 2018 (Answering Testimony)</p> <p>September 4, 2018 (Cross Answering</p>

			Testimony)
South Carolina Electric and Gas Company Application for Approval of Merger with Dominion Resources	South Carolina Public Service Commission	2017-370-E; 2017-305-E; and 2017-207-E	September 24, 2018 (Direct Testimony)
In re: Annual Review of Base Rates for Fuel Costs of South Carolina Electric and Gas Company	South Carolina Public Service Commission	2019-2-E	March 19, 2019 (Direct Testimony)

Comparing Natural Gas Capacity and Load in New Jersey:
 Load Duration Curves for NJ Deliveries During 2014-19
 vs. Capacity Identified by Levitan
 vs. Capacity Identified by Levitan + Other Identified Capacity



- Load Duration 2014-2015
- Load Duration 2015-2016
- Load Duration 2016-2017
- Load Duration 2017-2018
- Load Duration 2018-2019
- Total Levitan 2019 Interstate Capacity
- - - Stranded TETCO Capacity at ConEd
- - - Add'l Avail to NJ via TETCO and TGP->Transco
- - - Add'l Avail on Transco w-Segmentation to NJ Excl'd Native Load Entities Segmenting
- • • Add'l Avail to NJ w-All Segmentation used

NJ Scheduled Flow by Day vs. Capacity Identified by Levitan

