STATE OF NEW YORK

PUBLIC SERVICE COMMISSION

In the Matter of Eligibility Criteria for Energy Services Companies	**)**	**Case 15-M-0180**
Proceeding on Motion of the Commission to Assess Certain Aspects of the Residential and Small Non-residential Retail Energy Markets in New York State	**)**	**Case 12-M-0476**
In the Matter of Retail Access Business Rules	**)**	**Case 98-M-1343**

INITIAL TESTIMONY OF ALAN TILLEY

Submitted By:
Drift Marketplace, Inc.
SEPTEMBER 15, 2017

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Case 15-M-0127
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Testimony of Alan Tilley

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EXHIBITS

1. Exhibit_(AT-1) Resume of Alan Tilley

I. BACKGROUND

Q. Please state your name and business address.

A. My name is Alan Tilley and my business address is 2033 Sixth Avenue, Seattle, Washington, 98121.

Q. Mr. Tilley, by whom are you employed and in what capacity?

A. I am a co-founder, Director, Power Operations at Drift Marketplace, Inc.

Q. How long have you been the Director, Power Operations for Drift Marketplace, Inc.?

A. I have been with Drift since helping to found it in 2014.

Q. Please generally describe your current responsibilities and professional experience.

A. My responsibilities as Director, Power Operations include those responsibilities that are of a supply chain technology officer in the energy and information technology industries. This includes sourcing power generation, energy and information (IOT) network management, risk management, and delivery of services to the end users. I've been in the field of industrial automation and information technology since the late 1970s, when I was an electronic engineer at Measurements Systems International and designed software for the first microprocessor products introduced. From 1979 to 2008, I was the CEO and co-founder of Quester Microsystems, a manufacturer of hardware and software for energy

generation, industrial controls, and consumer markets. In order to develop technology focused on smart grid and solar technology, I also co-founded Questar Energy Systems in 2009, and was the acting CEO until 2014, when Questar Energy Systems was reorganized to form Drift Marketplace as VP of Engineering and a Board member. My current position is Director, Power Operation responsible for back office operations and development of supply and services.

Q. Have you previously submitted testimony on behalf of Drift Marketplace before the New York Public Service Commission ("Commission")?

A. No.

Q. Please describe Drift Marketplace, Inc.

A. Drift is an Energy As A Service ("EAAS") provider similar to a number of Software As A Service ("SAAS") we are all familiar with (Uber, AirBnB, Dropbox, etc.). Drift's business model is providing a service to customers similar to the current marketplaces for the cell phone, insurance, banking, investing, or cable industries.

Drift was founded in 2014 to provide energy services to customers in the retail energy markets. Drift launched in mid-2017 in the ConEd territory.

II. PURPOSE OF TESTIMONY

Q. What is the primary purpose of your testimony?

A. The primary purpose of my testimony is offer insight into the barriers to entry Drift has experienced entering the NY market. New technologies are opening up possibilities for mass market customers to gain more control over their energy purchasing decisions, and accessibility to those technologies for mass market customers is important to the success of REV. I am concerned decisions adverse to ESCOs, a type of retail choice provider, will have negative implications for companies like Drift which sees itself as a hybrid between ESCOs and DERs. In addition to acting as an ESCO, Drift intends to seek authorization to act as a Distributed Energy Resource (through the oversight guidelines being developed in Case 15-M-0180).

Q. Why did Drift enter the New York ESCO market?

A. New York was our number one choice for market entry because of the REV – the Reforming the Energy Vision – program. For both Drift's Board and investors, New York made the most sense, given REV and what we thought was a very exciting attempt to build distributed energy into a real competitive marketplace for consumers. Drift's goal is to help create a viable distributed energy marketplace, and allow existing customers to become not just consumers but 'prosumers' – to give them

real choices over their energy purchase decision-making. Drift believes that its technology and software systems will be able to offer consumers, particularly low-income, New York City, and statewide customers, a real opportunity to access, invest in, and benefit from renewable energy. Ultimately, Drift wants to be more of a 'Distributed Independent System Operator' – an aggregator for distributed energy delivering new and accessible energy and energy benefits to consumers.

Q. Do you have concerns with the scope of the issues set for Track I in the December 2, 2016 Notice of Evidentiary and Collaborative Tracks and Deadline for Initial Testimony and Exhibits, ("December 2 Notice")?

A. Yes, I am concerned that the scope of this proceeding is too narrow to address scope of challenges – and opportunities – for mass market customers. This proceeding is focused on the scope of the ESCO mass marketplace, and does not include companies that anticipate qualifying under the distributed energy resource ("DER") classification. Both types of companies (ESCOs and DERs) offer products and services designed to meet the needs of retail customers, and the evolving needs of both types of companies should be addressed in this proceeding. I am also concerned that if the outcome of this proceeding results in a shutdown of the current mass market retail market, the development of the new DER marketplace will be severely compromised.

Q. What is the scope of your testimony?

A. The subject my testimony focuses on certain December 2, 2016 Evidentiary Hearing topics. Specifically, on the topics that Drift feels are the most relevant for its business, and where we think we can offer a useful perspective: (A) the role of regulators and oversight of the retail mass market; (B) energy related value add services and mass market customers; (C) barriers to market innovation and mass market access; and (D) actions that could be taken to strengthen the retail market and potential benefits to mass market customers.

Q. Are you sponsoring an exhibit?

A. Yes, I am sponsoring Exhibit AT-1, "Resume of Alan Tilley," which is being filed simultaneously with this testimony.

III. TESTIMONY

A. The role of regulators and oversight of the retail mass market

Q. What role do you think the New York Department of Public Service should have in regulating the behavior of the retail energy market?

A. The Department plays a critical gatekeeper function for the retail market, and I'm supportive of continued oversight. I am concerned that the eligibility requirements for market entry are too low.

Q. Why, and what kind of impact could that have on the marketplace?

A. Without barriers to entry that require a company to meet credit threshold requirements, and demonstrate expertise on related risk, technical, financial, managerial and operational matters, the marketplace is vulnerable to unscrupulous actors that have no skin in the game. Without threshold barriers in place, it is easy for “fly by night” companies to do just what they’re doing now: enter the market, rapidly enroll customers on variable rate plans, and then selling those customers to existing ESCOs. I question how much value those companies actually provided to those consumers. Drift supports the Commission's effort to evolve the retail market place such that it offers all retail customers transparency with real choice and decision-making ability. We believe in a vibrant, animated marketplace that rewards delivering consumer value.

B. Energy related value add services and mass market customers

Q. What services does Drift currently provide or plan to provide to mass market customers?

A. Drift business model is meant to operate as a Distributed Independent System Operator (d/ISO) integrated within the larger wholesale market. Drift secures a multitude of independent power nodes in its network that include, but not limited to hydroelectric dams, solar-plus-storage projects, wind farms, EV recharging stations, residential storage devices, large commercial building management systems and

residential/small business prosumers. Using artificial intelligence and machine learning to forecast energy demand from the next day to real time, by factoring in variables, such as the individual customers historical usage, zip code, microclimate weather data estimates, real time grid operational parameters; energy is intelligently distributed, stored and dispatched from its network of peer-to-peer energy nodes to deliver power to its consumers at substantial savings over utility rates, with multiple added benefits, including participation in the ownership of the DER assets. Drift Marketplace is a platform that allows new innovative technologies and products to connect with consumers. Innovators like NEST thermostats for demand reduction, behind the meter storage, smart appliances, can enable consumers to earn income, support grid reliability and reduce emissions. Connecting producers to users thru the Drift Marketplace, providing a compelling user experience that consumers have come to expect in today's marketplace.

Q. What about this business model is different from the current commodity-focused business model of many ESCOs that serve mass market customers?

A. The ultimate goal of Drift is to help create a marketplace where purchasers of energy, including and especially mass market customers, are not just consumers but “prosumers.” Meaning that no matter where a customer is

located on the grid and no matter if they are single family or low-income or a business, that customer is not charged by how much they use but by the service they receive. These services include but not limited to: buying renewable energy generation (community solar), to participate in building a distributed and renewable energy grid, while also having the ability to see reduction in their bill. Drift charges a small subscription fee ($1/week) to allow the consumer to buy power at wholesale, which allows residential and small commercial customers the ability to enjoy the economic benefits of wholesale pricing that have typically only been available to large business enterprises.

Q. How else would Drift's model be able to offer mass market customers price savings on their bill?

A. In addition to providing consumers the access to wholesale prices, Drift intends to offer mass market customers the ability to participate in community solar and a structure that would allow individuals to buy virtual solar generation and at the same time gain an ownership interest in the solar facility.

C. Barriers to market innovation and mass market access

Q. Would Drift's business model be able to guarantee savings against the prices charged by the utility in the current marketplace?

A. We are confident it could, and our experience to date indicates that our business model will be able to guarantee savings.

Q. How so?

A. It boils down to the differences between private enterprises like Drift and the utilities. For example, utilities are regulated monopolies, and are not required to respond to market dynamics in the same way as ESCO/DERs or non-utility market participants nor have the same cost burden of marketing against an incumbent monopoly. Utilities have a certain level of cost-recovery baked into their system and their price is erroneously viewed as a benchmark in a non-competitive marketplace. However, the critical barrier for being able to guarantee savings is the utilities lack of transparency and consumer choice and evolving consumer technologies.

A. Our experience is that the utilities are not required to disclose most of their rate calculations or methodology. Further, utilities understandably have no real incentive to share that information or update their systems to allow for more efficient communication with other market participants. Therefore, although Drift's new technologies will allow mass-market customers to realize rate savings as compared to the utility, Drift finds it next to impossible to know what the utility rate was in the past (for bill review and quoting) or will be. Luckily, technologies have become available abrogated this problem for Drift's consumers. We can accurately

determine the utilities billings at any time and provide our customers with this benchmark pricing and guarantee (with the wholesale NYISO commodity) we will be lower that the utility, or we will refund the difference. Of course, we find many our customers are interested in low emission generation which we provide at a comprehensive saving targeted to meet the standard utility rate.

Q. In your opinion, is the current retail market realizing the Commission's efforts (as outlined in its February 23, 2016 Resetting Order) "*to promote high quality customer service, increase the range of energy-related services, and continue to increase the benefits obtained by customers from retail energy markets*"?

A. No. The issues I addressed earlier, like the lack of transparency in utility pricing and ratemaking, are preventing the New York retail market from offering real competition and competitive products to customers.

Q. From Drift's perspective, what have been the most significant barriers to a competitive marketplace in the current retail market?

A. As I mentioned earlier, the biggest barrier Drift is running into is the lack utility transparency and incentive to make the changes that are necessary to allow interoperability with Drift's software system. For example, it took almost a year to complete the required utility hook-ups. I've had several with Department Staff and ConEd to try and resolve the EDI process we

began in October 2016, and it's still ongoing. The other major issue is that much of the current software and technology used by utilities is incompatible with newer platforms like web and mobile platforms. If the technology isn't upgraded and allow consumer access to their data, I think utilities will have a difficult time attracting market investment. This is especially true for the technologies planned under REV.

D. Recommended actions that could be taken to strengthen the retail market and potential benefits to mass market customers

Q. What type of measures would you recommend be adopted to allow for greater access by mass market customers to emerging DER and renewable products?

A. A fundamental shift in the framework of the retail marketplace is required. In order to give mass market customers the opportunity to benefit from emerging DER services provided by ESCOs and other retail choice providers, it is critical that the utilities are provided with appropriate guidance and tools to increase their ESCO/DER-facing support. They should also be supported to invest in significant upgrades to their current information technology platforms. Utilities in Texas, for example, successfully upgraded their systems to allow for compatibility with retail billing allowing retailers to add services and bill the distribution charges. These upgrades will also help pave the way for a successful DER market,

which will be increasingly virtual and will require the ability to offer alternatives to the current system of utility consolidated billing. Dual bill is both confusing to the consumer and an uneconomical duplication of resources.

Q. In your opinion, what will be the effect on the retail marketplace if these barriers are not addressed? What kind of threat does this pose to the evolution and success of the retail marketplace?

A. One potential outcome could be attempts to do technological end-runs around these limitations. If we don't see technology upgrades and a change in framework that enables utilities to work with private companies the market, I fear it will be difficult for the potential benefits anticipated by REV to occur, and there will be less interest from the private business sector. Companies like Drift are bringing other partners to the market – we've been approached by Google and Tesla, for example – but they want to work with other businesses, not suffer the extreme sales cycle and uncertainty of monopolies. If it's too difficult to make it work in the New York market, the ideas and opportunities will simply go elsewhere.

Q. And in your opinion, is it possible to eliminate these barriers while also ensuring sufficient customer protections, particularly for residential and small commercial customers?

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A. It's absolutely possible. Today I can file and pay my taxes both state and federal, open a bank account, buy insurance, sign the closing papers to purchase property, and buy most anything, all online with trust both in the agreement with the vendor and in the underlying monetary transaction. What is so different about buying power every single month from one supplier? Given the challenges companies like Amazon, Apple, etc. solve for consumers every day, the consumer energy marketplace has a long way to go. The REV initiative and its potential to realize a prosumer-based marketplace is the reason the Board of Drift decided to enter the New York Market. Drift has also been successful in raising significant investor funding because they believe in ability of the New York market to deliver genuine systemic innovation in the energy industry. It's also imperative to realize these changes while protecting consumers. And in my opinion, REV is not going to happen without consumer engagement, and engagement drives innovation.

Q. Does this conclude your testimony?

A. Yes, and thank you for the opportunity to provide testimony on behalf of Drift Marketplace, Inc.

Case 15-M-0127
Case 12-M-0426
Case 98-M-1343

Exhibit__(AT-1)

Resume of Alan Tilley

Alan Tilley

alan@joindrift.com
425-221-7035
www.joindrift.com

Education

Old Dominion University
June 1967 – Undergraduate credit transfer

Washington Technical Institute
September 1977 – AA Electronics

Experience

Drift Marketplace, Inc. | 111 S Jackson St. Seattle, WA 98104
VP Engineering | Board Member | Co-Founder ***July 2014*** – Present

- Product development
- Supply side operations management
- Vendor relations

Questar Energy Systems | 1100 NE Campus Parkway, Seattle, WA 98105
CEO | Co-Founder ***August 2009*** – July 2014

- Strategic direction
- CAD/CAM design for 2-axis solar tracking system
- Designer and architect for Dual-Axis Tracker, Autonomous Energy Network and Smart Grid Node Management.

Questar Microsystems
CEO | Co-Founder *April* ***1979*** – December 2008

- Managed development of hardware and software products for industrial and consumer markets.
- Managed growth and evolution of company through a number of business, technology, and products cycles.
- Developed sales and support channels in industrial and consumer product lines.
- Corporate management of all business aspects

Measurement Systems International | 14240 Interurban Avenue South, Tukwila, WA 98168
Electronic Engineer *September* ***1977*** – *April* ***1979***

- Designed electronics and software for first microprocessor products introduced.
- Trouble shoots prototypes and field tested new products.

Skills

- Executive Leadership
- Operations Management
- Assembly and C/C++ programming
- System design and analysis
- CAD/CAM design and modeling