GOVERNMENT OF THE DISTRICT OF COLUMBIA Office of the Attorney General

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KARL A. RACINE ATTORNEY GENERAL

Public Advocacy Division Public Integrity Section

E-Docketed

May 25, 2018

Ms. Brinda Westbrook-Sedgwick, Secretary Public Service Commission of the District of Columbia 1325 G Street, NW, Suite 800 Washington, DC 20005

Re: Formal Case No. 1142 – In the Matter of the Merger of Alta Gas, Ltd., and WGL Holdings, Inc.

Dear Ms. Westbrook-Sedgwick:

On behalf of the District of Columbia Government (DCG), I enclose for filing an original and thirteen (13) conformed copies of the Testimony of Asa S. Hopkins in Support of the Settlement Agreement (Exhibits DCG (2C) and DCG (2C)-1) in this matter. If you have any questions regarding this filing, please contact the undersigned.

Sincerely,

KARL A. RACINE Attorney General

- By: <u>/s/ Brian Caldwell</u> BRIAN CALDWELL Assistant Attorney General (202) 727-6211 – Direct Brian.caldwell@dc.gov
- cc: Service List

BEFORE THE PUBLIC SERVICE COMMISSION OF THE DISTRICT OF COLUMBIA

IN THE MATTER OF THE MERGER OF ALTAGAS, LTD. AND WGL HOLDINGS, INC.

)) Formal Case No. 1142)

Direct Testimony and Exhibits of District of Columbia Government Witness

ASA S. HOPKINS

In Support of the Settlement Agreement

EXHIBIT_DCG (2C)

May 25, 2018

TESTIMONY OF ASA S. HOPKINS Formal Case No. 1142: Exhibit_DCG (2C) Review of Settlement Agreement

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EXHIBIT LIST

ADDENDUM TO RESUME OF ASA S. HOPKINS: Exhibit_ DCG (2C)-1

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1		I. <u>INTRODUCTION</u>
2 3	Q.	PLEASE STATE YOUR FULL NAME, ADDRESS, AND OCCUPATION.
4	A.	My name is Asa S. Hopkins. I am a Principal Associate at Synapse Energy Economics
5		located at 485 Massachusetts Ave., Suite 2, Cambridge, MA 02139.
6	Q.	ARE YOU THE SAME ASA S. HOPKINS WHO PROVIDED DIRECT
7		TESTIMONY ON BEHALF OF THE DISTRICT OF COLUMBIA
8		GOVERNMENT ("DCG" OR "DISTRICT GOVERNMENT") IN THIS
9		PROCEEDING?
10	A.	Yes, and I continue to appear on behalf of DCG in this matter. My occupational and
11		educational histories are set forth in my initial Direct Testimony filed in this matter on
12		September 29, 2017. ¹
13	Q.	WHAT IS THE PURPOSE OF THE TESTIMONY YOU ARE PRESENTING?
14	A.	The purpose of my testimony is to support the Unanimous Settlement Agreement
15		("Agreement") among AltaGas Ltd. ("AltaGas"), WGL Holdings, Inc. ("WGL"),
16		Washington Gas Light Company ("Washington Gas"), and other related entities
17		(collectively, "Applicants"), and: the District Government; Office of People's Counsel;
18		the United States Department of Defense and all other Federal Executive Agencies; the
19		Apartment and Office Building Association of Metropolitan Washington; the Laborers'
20		International Union of North America, its affiliated District Council, and Local Unions
21		serving or located in Washington, D.C.; Local 2 of the Office and Professional

¹ Exhibit__DCG (F), at 2-4, and Exhibit__DCG (F)-1.

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1		Employees International Union, AFL-CIO; and National Consumer Law Center /
2		National Housing Trust (collectively, the "Settling Parties") that was filed on May 8,
3		2018, in this matter.
4	Q.	WAS THIS TESTIMONY PREPARED BY YOU OR UNDER YOUR
5		DIRECTION?
6	A.	Yes, it was.
7	Q.	HAVE YOU PREPARED ANY EXHIBITS TO BE FILED WITH YOUR
8		TESTIMONY IN SUPPORT OF THE SETTLEMENT?
9	A.	Yes, I prepared an addendum to my September 29, 2017 resume attached to my direct
10		testimony as Exhibit_DCG (C)-1. The addendum is attached hereto as Exhibit_DCG
11		(2C)-1 and sets forth additional matters on which I have participated since September
12		29, 2017.
13		
14		II. <u>SUMMARY OF TESTIMONY</u>
15	Q.	PLEASE SUMMARIZE YOUR TESTIMONY.
16	A.	My testimony addresses the Commission's seventh public interest factor: "the effects
17		of the transaction on the conservation of natural resources and preservation of
18		environmental quality." ² I begin with an overview of my initial concerns about the
19		proposed transaction. These concerns were addressed in my previous testimony and
20		were based on the Applicants' original application for approval of the proposed merger.

² Formal Case No. 1142, In the Matter of the Merger of AltaGas Ltd. and WGL Holdings, Inc., Order No. 18843, ¶7 (rel. July 24, 2017).

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I will then discuss certain of the specific commitments that were modified or added 1 2 through the proposed Agreement, and I will explain how these new commitments address my prior concerns. Specifically, I will discuss modified Commitment 3 to 3 4 provide \$4.2 million for energy efficiency measures in low-income multifamily 5 buildings (and corresponding elimination of original Commitment 2 to provide \$2 6 million to expand natural gas services to low-income multifamily households). I will 7 also discuss modified Commitment 5 to provide 10 MW of battery storage or renewable 8 Tier 1 energy, rather than 5 MW, as well as the benefits to the District if a 10 MW 9 battery storage facility were constructed. Next, I will discuss several of the 10 Commitments regarding leaks of methane, a potent greenhouse gas: Commitments 55, 11 56, 57, and 73. Then I will discuss AltaGas' new Commitment 76, which is essentially 12 an adoption by AltaGas of WGL's position on climate change. Finally, I will discuss 13 new Commitment 79. This obligates the merged entity to file a long-term business plan 14 to evolve AltaGas' business mode to support the District's climate and clean energy 15 goals and to hold public bi-annual meetings to report on its progress in that regard. I conclude my testimony by finding that the proposed merger, as modified by the terms 16 17 in the Agreement, will have a net positive impact on the conservation of natural 18 resources and preservation of environmental quality.

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1Q.HAVE THE ADDITIONAL AND MODIFIED COMMITMENTS IN THE2SETTLEMENT AGREEMENT RESULTED IN SIGNIFICANT3IMPROVEMENTS TO THE PROPOSED TRANSACTION?

4 A. Yes. The Agreement contains additional and modified commitments, which provide 5 direct and tangible benefits to ratepayers and to the conservation of natural resources 6 and preservation of environmental quality. The Agreement more than doubles the 7 spending commitment for energy efficiency (Commitment 3), while eliminating the 8 commitment to expand natural gas service in ways that may be contrary to the District's 9 policy goals (former Commitment 2). The Agreement also doubles the capacity of the 10 energy storage or renewable energy generator that the Applicants commit to construct 11 in the District of Columbia, from 5 MW to 10 MW. The addition of leak volumes to 12 Commitment 57 will enable evaluation of the methane emissions from Grade 2 leaks. 13 Commitment 73 establishes penalties for failure to reduce leaks, thereby increasing the 14 likelihood that the Applicants will meet the leak reduction targets. Commitment 76 15 lessens my concerns that transfer of ownership to AltaGas would represent a step backwards with respect to WGL's understanding of, and commitment to, mitigate 16 17 global climate change. Finally, Commitment 79 establishes an important mechanism 18 to force the Applicants to address the future of their business model in the context of 19 the District's policy and legal commitments to reduce greenhouse gas emissions, and 20 to invite the public to participate in and evaluate progress toward a new business model.

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1	Q.	DOES THE SETTLEMENT AGREEMENT PROVIDE BENEFITS THAT
2		WOULD NOT BE AVAILABLE IN THE ABSENCE OF THE MERGER?
3	A.	Yes, I believe it does. Shareholder funding of energy efficiency, renewable generation,
4		and electric energy storage would not have been available without the merger.
5		
6		III. <u>ENERGY EFFICIENCY</u>
7	Q.	PLEASE DISCUSS THE IMPORTANCE OF ENERGY EFFICIENCY FOR
8		LOW-INCOME HOUSEHOLDS RESIDING IN MULTIFAMILY UNITS IN
9		THE DISTRICT OF COLUMBIA.
10	A.	Energy costs can be a substantial portion of a low-income household's monthly
11		expenditures. As such, energy efficiency can increase financial security for those
12		households. At the same time, it can provide non-energy health benefits through
13		improved indoor environmental quality. Multi-family housing is a particular challenge
14		for energy efficiency because it can be subject to split incentives (where the building is
15		owned by one entity, while another pays the energy bills) and coordination challenges
16		among tenants and owners for shared building components (like the common spaces
17		and outside building shell).
18	Q.	WHAT CONCERN DID YOU RAISE REGARDING THIS ISSUE WITH
19		RESPECT TO THE PREVIOUS MERGER COMMITMENTS?
20	A.	I had two primary concerns. First, I was concerned that the need for energy efficiency
21		funds in low-income housing exceeded the level of funding proposed by the Applicants.

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Second, I was concerned about the process the Applicants proposed to use to develop
 programs to serve low-income customers.

3 Q. HOW ARE THESE CONCERNS ADDRESSED IN THE AGREEMENT?

4 A. In the Agreement, the Applicants have nearly doubled the funding commitment for 5 energy efficiency, from \$2.2 million to \$4.2 million. Increased funding should allow 6 the resulting program to serve more customers, save more energy, reduce more 7 greenhouse gas emissions, and further increase indoor environmental quality. 8 Targeting the funding to low-income, multi-family housing should allow for a more 9 focused program that is better tailored to its targets' needs, while allowing other 10 efficiency programs in the District to coordinate their efforts with this one. The 11 Applicants have also addressed my concerns regarding the process to develop the 12 efficiency program by committing to a competitive RFP process to select a funds 13 administrator. Such a process will allow other efficiency program implementers to 14 respond and, if they can make a compelling case, be selected to administer the program. 15 As I discussed in my earlier testimony, such an implementation path could reduce 16 administrative costs so that the committed funds achieve the greatest good.

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- 18
- 20

19

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IV. AFFORDABLE HOUSING MULTIFAMILY NATURAL GAS INITIATIVE Q. THE AGREEMENT REMOVES A COMMITMENT TO SPEND \$2 MILLION ON AN AFFORDABLE HOUSING MULTIFAMILY NATURAL GAS INITIATIVE. WHAT WERE YOUR CONCERNS WITH RESPECT TO THIS COMMITMENT?

A. I was concerned that this initiative would be contrary to the District's policy objectives
of deep decarbonization, which would be better served through the promotion of
electric space and water heating systems; that the Applicants were incorrect in their
assessment of the customer bill savings and environmental benefits from choosing
natural gas; and that the merged entity would effectively be engaged in business
development under the guise of a merger commitment. The Agreement addresses these
concerns by removing this commitment.

- 13
- 14

V. <u>STORAGE AND RENEWABLE GENERATION</u>

15 Q. PLEASE DISCUSS THE IMPORTANCE OF DEVELOPING ENERGY 16 STORAGE OR TIER 1 RENEWABLE ELECTRICITY GENERATION IN THE 17 DISTRICT OF COLUMBIA.

A. Renewable electricity generation in the District of Columbia reduces imported energy
and renewable energy credits from other states, moves generation close to load
reducing line losses, and (if the generation is solar PV) helps meet the District's solarspecific policy goals. Energy storage can increase local grid stability and reliability
(including through integration with microgrids), help to avoid the need to build other

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electric grid infrastructure, improve the grid integration of variable renewable sources,
 and mitigate the need to operate expensive and typically low-efficiency peaking
 generators. As Commitment 5 contemplates, both storage and generation also produce
 local employment for construction, operation, and maintenance.

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5 Q. HOW DOES THE AGREEMENT IMPROVE ON EARLIER COMMITMENTS
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6 WITH RESPECT TO DEVELOPING RENEWABLE ENERGY OR ENERGY 7 STORAGE IN THE DISTRICT OF COLUMBIA?

8 A. The Agreement doubles the capacity of renewable generation or energy storage that the 9 Applicants commit to construct within the next five years from 5 MW to 10 MW. As 10 alluded to above, the Agreement also includes a commitment to use reasonable efforts 11 to ensure that at least 20 percent of the operational jobs are sourced from the local 12 workforce.

13 Q. HOW DOES THIS CHANGE POSITIVELY IMPACT THE DISTRICT OF 14 COLUMBIA?

15 A. A larger renewable generator would make a more positive impact on achieving the 16 District's renewable portfolio standard objectives, including advancing environmental 17 quality. However, I expect that the Applicants will choose to deploy energy storage 18 primarily, due to land constraints in the District. (10 MW of solar PV would cover an 19 area equivalent to about half of the National Mall, whereas 10 MW of batteries can fit 20 in a few shipping containers.) The benefits of additional electric energy storage 21 installation in the District would depend on how it is deployed and configured. If it is 22 part of a microgrid, it would increase the potential number of buildings or services

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1		supported by microgrids (or support twice as many microgrids). Storage can also
2		increase the amount of renewable generation that can be connected to each of the
3		Potomac Electric Power Company's (Pepco) feeders or network groups by limiting and
4		controlling the export of power from the distributed generators onto the grid. If
5		coordinated with Pepco, energy storage could shave feeder peaks on twice as many
6		feeders (or go deeper on the same number of feeders), avoiding the need for transformer
7		upgrades. Whether storage or generation, a doubling in the project capacity implies
8		more economic activity associated with construction and maintenance.
9		
10		VI. <u>METHANE LEAKS</u>
11	Q.	PLEASE SUMMARIZE YOUR CONCERNS WITH RESPECT TO METHANE
12		LEAKS AND ENVIRONMENTAL QUALITY IN THE CONTEXT OF THE
12 13		LEAKS AND ENVIRONMENTAL QUALITY IN THE CONTEXT OF THE MERGER.
	A.	
13	A.	MERGER.
13 14	A.	MERGER. Methane emissions constitute one half of one percent (0.5 percent) of the District's
13 14 15	A.	MERGER. Methane emissions constitute one half of one percent (0.5 percent) of the District's greenhouse gas emissions. (Exhibit DCG(H)-5). A change in the ownership of WGL
13 14 15 16	A.	MERGER. Methane emissions constitute one half of one percent (0.5 percent) of the District's greenhouse gas emissions. (Exhibit DCG(H)-5). A change in the ownership of WGL raises the risk of an adverse change in the merged company's approach to reducing lost
13 14 15 16 17	А. Q .	MERGER. Methane emissions constitute one half of one percent (0.5 percent) of the District's greenhouse gas emissions. (Exhibit DCG(H)-5). A change in the ownership of WGL raises the risk of an adverse change in the merged company's approach to reducing lost methane. On the other hand, it creates opportunity for a new owner to take a more
13 14 15 16 17 18		MERGER. Methane emissions constitute one half of one percent (0.5 percent) of the District's greenhouse gas emissions. (Exhibit DCG(H)-5). A change in the ownership of WGL raises the risk of an adverse change in the merged company's approach to reducing lost methane. On the other hand, it creates opportunity for a new owner to take a more aggressive approach to reducing leaks.
 13 14 15 16 17 18 19 		MERGER. Methane emissions constitute one half of one percent (0.5 percent) of the District's greenhouse gas emissions. (Exhibit DCG(H)-5). A change in the ownership of WGL raises the risk of an adverse change in the merged company's approach to reducing lost methane. On the other hand, it creates opportunity for a new owner to take a more aggressive approach to reducing leaks. HOW DOES THE AGREEMENT IMPROVE ON EARLIER COMMITMENTS

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- 1 of leak volumes identified in the Leak Survey Mobile Mapping Program. I suggested 2 in my earlier testimony that leak volumes be used as part of the prioritization process 3 for leak repairs. Measuring and reporting on leak volumes is an essential precondition 4 to such prioritization. Second, Commitment 73 sets targets for leak reductions and sets 5 increasing financial penalties for missing those targets. Those penalties, if triggered, 6 would then be used to fund energy efficiency and workforce development initiatives. 7 The desire to avoid financial penalties should provide a strong incentive to AltaGas and 8 WGL to meet the leak reduction targets. Fewer leaks means less methane will be 9 emitted, and thus an increase in environmental quality. Finally, it is worth noting that 10 in Commitment 55, AltaGas agreed to contribute \$4 million to hire and train additional 11 repair crews, thereby offsetting a portion of the costs to achieve the Grade 2 leak 12 backlog reductions.
- 13

14

VII. PLANNING FOR PUBLIC POLICY

Q. WOULD YOU PLEASE DISCUSS THE IMPORTANCE OF A UTILITY UNDERSTANDING, AND COMMITING TO MITIGATE, GLOBAL CLIMATE CHANGE?

A. Both electric and gas distribution utilities play unique and important roles in shaping
both how consumers use energy and the amount of emissions that result. A utility that
did not accept the science of global climate change would likely not be a willing and
useful partner for a jurisdiction committed to mitigating climate change through

Exhibit __DCG (2C) Formal Case No. 1142 Testimony of Asa S. Hopkins in Support of Settlement Agreement Page 11 of 14

CONCERNS

emission reduction. Utility opposition to public policy can result in litigation, delay,
 and cost.

3 Q. WHAT WERE YOUR CONCERNS WITH RESPECT TO CLIMATE CHANGE 4 SCIENCE, MITIGATING ACTIONS, AND THE MERGER?

5 A. I was concerned that AltaGas would not be a good partner for the District in pursuing 6 its policy of aggressively reducing greenhouse gas emissions. I testified that the 7 District's pursuit of environmental quality through actions to mitigate climate change 8 could be hindered by a utility that would not state directly that it agreed with the 9 Intergovernmental Panel on Climate Change on both the science of climate change and 10 the need for rapid emission reductions. WGL had made strong statements in support of 11 both the underlying science and the need for action, and I was concerned that a change 12 in ownership would represent a negative shift with respect to the District's public policy 13 on climate change.

14 Q. HOW DOES THE AGREEMENT MITIGATE YOUR

15 **REGARDING ALTAGAS'S POSITION ON CLIMATE CHANGE?**

A. The Agreement's Commitment 76 mitigates my concerns because it puts AltaGas on record as explicitly agreeing with the scientific consensus on human activity and climate change and stating that action is required now to reduce emissions. This commitment will serve as an enduring statement that the Commission, the District Government, and other parties can use to compare against AltaGas's actions in the coming years.

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Q. WHY IS LONG-TERM PLANNING FOR A UTILITY'S BUSINESS MODEL IMPORTANT FOR THE UTILITY'S RATEPAYERS?

A. A utility, the community it serves, and its regulators have a long-term compact. A utility
that plans only for short-term risks creates undue costs for its customers and community
in the long term. This includes not just planning for traditional utility investments in
long-lived assets, but also planning for changes in the utility's business model. A utility
must, as part of that planning, take into account the stated public policies of the
communities it serves, and trust that over time regulators and others will shift its
business model to align with, rather than contest, those policy objectives.

10 Q. HOW DOES BUSINESS MODEL UNCERTAINTY POSE RISKS TO 11 ENVIRONMENTAL QUALITY?

A. If a utility's business model is at odds with its community's environmental quality
policies, the community faces a risk that the utility's incentive will be to hinder meeting
environmental goals. Utility shareholders and management may advocate against
changes in public policy, rather than evolving the utility's business model in pursuit of
alignment.

17 Q. WHAT WERE YOUR CONCERNS ABOUT ALTAGAS, WGL, AND THE 18 MERGED ENTITY'S BUSINESS MODEL ON THE PURSUIT OF THE 19 DISTRICT'S ENERGY AND CLIMATE CHANGE POLICIES?

A. I was concerned that aspects of AltaGas's business model—including both its regulated
and unregulated businesses—could lead AltaGas, and, through it, WGL, to be resistant

Exhibit __DCG (2C) Formal Case No. 1142 Testimony of Asa S. Hopkins in Support of Settlement Agreement Page 13 of 14

to District policies and programs directed at meeting the District's climate change
 goals.

3 Q. HOW DOES THE AGREEMENT MITIGATE YOUR CONCERNS 4 REGARDING THE FUTURE BUSINESS MODEL OF THE DISTRICT OF 5 COLUMBIA'S GAS UTILITY?

6 A. Commitment 79 requires AltaGas to examine its long-term business plan and determine 7 how it can evolve its business to serve the District's 2050 climate goals. By looking 8 long term, and taking into account the District's stated long-term policy objectives, this 9 should have the effect of forcing AltaGas, the Commission, and the public to think 10 deeply about how AltaGas can contribute to, rather than undermine, the District's 11 policies. This commitment establishes the correct order of precedence: how the utility 12 can serve public policy objectives (as opposed to how public policy should be 13 restrained by the utility's business model). And the biennial public meetings will 14 provide an opportunity for public input and education, as well as identification of 15 changed circumstances that may require modifications to the business plan. In my earlier testimony, I discussed several issues that may require business model changes 16 17 (including competition between electric and gas utilities and the risk of stranded assets, 18 especially for vulnerable communities). Since addressing these issues will be 19 complicated and take time, establishing a formal and public process through which they 20 can be addressed represents a good first step.

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1 2 VIII. <u>CONCLUSION</u> 3 Q. TAKING THE AGREEMENT AS A WHOLE, WHAT CAN YOU CONCLUDE 4 **REGARDING WHETHER THE MERGER WILL HAVE A NET POSITIVE** 5 IMPACT ON THE CONSERVATION OF NATURAL RESOURCES AND 6 **PRESERVATION OF ENVIRONMENTAL QUALITY?** 7 A. The Agreement mitigates my substantial concerns that the merger would create 8 impediments to improving environmental quality in the District of Columbia. By 9 removing a spending commitment that was contrary to the District's stated public 10 policy (the multi-family piping initiative) in favor of increased funding for energy 11 efficiency, the net result is improved. A larger energy storage or renewable energy 12 commitment will further improve environmental quality, as will stronger commitments 13 to reduce methane leaks. By embracing climate science and the need for action-14 including the need to re-examine its own business plan-AltaGas has shown that it 15 could be a positive partner as the District pursues its clean energy and greenhouse gas 16 goals.

17 Q. DOES THIS CONCLUDE YOUR TESTIMONY IN SUPPORT OF THE 18 SETTLEMENT?

19 A. Yes, it does.

I declare under penalty of perjury that the foregoing testimony is true and correct to the best of my knowledge, information, and belief.

Executed this 25^{4} day of May, 2018.

Asa S. Hopkins



Asa S. Hopkins, Ph.D., Principal Associate

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ADDENDUM

REPORTS

Woolf, T., A. Hopkins, M. Whited, K. Takahashi, and A. Napoleon. 2018. *Review of New Brunswick Power's 2018/2019 Rate Case Application*. Prepared for the New Brunswick Energy and Utilities Board Staff. NBEUB Matter No. 375.

Hopkins, A., S. Fields, and T. Vitolo. 2017. *Policies to Cost-Effectively Retain Existing Renewables in New York*. Prepared foe the Alliance for Clean Energy New York. Filed in NY PSC Matter 15-E-0302 by the Alliance for Clean Energy New York.

Hopkins, A. and K. Takahashi. 2017. *Alternatives to Building a New Mt. Vernon Substation in Washington, DC*. Prepared for the District of Columbia Department of Energy and Environment. Filed in DC PSC Formal Case 1130 by the Department of Energy and Environment.

TESTIMONY

Vermont Public Service Board (Cases No. 17-1247-NMP, 17-5229-NMP, 18-0107-NMP, and 18-0138-NMP): Addressed the consistency of several proposed net metered solar PV generating facilities with the Vermont Comprehensive Energy Plan. On behalf of the developer of the proposed projects.

SELECTED PRESENTATIONS

Hopkins, A. 2018. "Rate Design: Basics and What's Possible" at the Northeastern States Regional Meeting of the National Association of State Energy Officials, April 2018.

Hopkins, A. 2018. "Analyzing Strategic Electrification: The Big Picture." Webinar hosted by Synapse Energy Economics, January 18, 2018.

Addendum dated May 2018

Exhibit_DCG (2C)-1

CERTIFICATE OF SERVICE

I hereby certify that on this 25th day of May, 2018, I caused true and correct copies of the foregoing Testimony of Asa S. Hopkins in Support of the Settlement Agreement (Exhibits DCG (2C) and DCG (2C)-1) to be delivered to the following parties:

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/s/ Brian Caldwell Brian Caldwell