

STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

Docket No. DE 19-197

Electric and Natural Gas Utilities

Development of a Statewide, Multi-use Online Energy Data Platform

TESTIMONY OF

APRIL SALAS

August 12, 2020

On behalf of

The Town of Hanover

& the Local Government Coalition

1 Q. State your name, title, organization, and business address.

2 A. April Salas, Sustainability Director, Town of Hanover, 41 South Main Street, Hanover, NH
3 03755.

4 Q. Describe your professional role and your professional background.

5 A. I am employed professionally as both Chief Sustainability Officer for the Town of Hanover
6 and Executive Director of the Revers Center for Energy at Dartmouth's Tuck School of Business. I
7 have nearly two decades of public and private sector experience in energy finance, power delivery,
8 energy reliability, markets analysis, sustainability, data, and new technology integration. The Revers
9 Center – one of six research centers at Tuck – helps build pathways of learning and connection to
10 industry for MBA students, to include advising on climate, sustainability, and clean energy related
11 projects with companies leading the charge on sustainable innovation. Additionally, I co-teach a
12 course in Morocco focused on energy innovation in frontier economies, lead consulting projects in
13 Singapore and Australia, and work domestically with companies and students wishing to explore all
14 aspects of sustainability, climate, and clean energy.

15 Prior to Tuck, I began my career in energy finance consulting in mid-/downstream oil and
16 gas. I have held various senior positions within the US Department of Energy in power delivery,
17 energy reliability and systems analysis, including directing the White House's Quadrennial Energy
18 Review Task Force Secretariat, the State Energy Assurance Program – working to monitor and
19 upgrade the US electric, petroleum, and natural gas infrastructure – and leading Planning and
20 Analysis for all federal energy emergency response events with FEMA. I am a founder a global
21 energy security advisory program, supporting DOE's country-to-country engagements, as well as US
22 government support to international energy emergency response. I have represented US government
23 energy security interests at NATO, led engagements in Colombia, Haiti, Iraq, and within the EU.

1 My current work focuses on helping Hanover achieve its 100% renewable energy targets by
2 2050, and working with companies on re-envisioning their role in climate mitigation. I hold an MBA
3 from Cornell University's Johnson School; two Masters degrees, in International Security and
4 Economics, with a focus on energy poverty and development; and a BA from the College of William
5 and Mary.

6 **Q.** Are there other aspects of your professional background that have relevance to this docket?

7 **A.** Yes. I have over 17 years' experience in infrastructure systems analysis, including key
8 leadership roles in the public and private sector, including consulting with multi-national energy
9 companies, leading a multi-million dollar American Reinvestment and Recovery Act (ARRA)
10 programs focused on state energy assurance and resilience, leading efforts for the White House
11 Office of Science, Technology, and Policy and Secretary of Energy's Quadrennial Energy Review
12 Second Installment that focused on a comprehensive review of the US electricity system, published
13 on January 6, 2017. (The Quadrennial Energy Review (QER) Task Force released the second
14 installment of the Quadrennial Energy Review report titled "[Transforming the Nation's Electricity](#)
15 [System](#)"¹.) The preponderance of my work at U.S. Department of Energy was in the program office,
16 The Office of Electricity Delivery and Energy Reliability. I was the Director of Planning and
17 Analysis Team within US DOE, in charge of all visualization platforms, data, and analysis reporting
18 to FEMA, Secretary of Energy and the White House for any federal energy disaster declaration,
19 including FEMA's ESF-12. Tasked with working with industry asset owner operators, states, local
20 government and throughout the federal interagency, under my leadership, we oversaw the
21 establishment of a multi-million dollar environment for analysis for geo-located energy infrastructure
22 (EAGLE-I), including, near real time feeds of 15 min or less interval data on the electric power

¹ <https://www.energy.gov/policy/initiatives/quadrennial-energy-review-ger/quadrennial-energy-review-second-installment>

1 system. This included multiple investor owned utility direct feed data, as well as, ‘scraped’ data, for
2 more than 75 million electric customers across the United States. The program includes specificity of
3 data fidelity, security, data anonymization, and various user defined views that dictated what data
4 was made available. Under our office, also included experts leading in cyber security of energy
5 delivery systems, and we worked across OE to incorporate data and security controls, related to other
6 programs we led, including the deployment of smart meters nationwide, as well as, additional
7 controls on higher voltage aspects of the system. We successfully worked through many of the
8 concerns that have been raised regarding secure access to data, nearly a decade ago.

9 **Q.** What is the purpose of your testimony?

10 **A.** The purpose of my testimony is to describe Hanover’s experience in working to obtain
11 community energy data in the past, and to highlight the costly and burdensome nature of the current
12 status of data access in New Hampshire. Hanover is glad to see the state and the Public Utilities
13 Commission undertaking this docket. We feel that a Statewide, Multi-use Online Energy Data
14 Platform would be of great value to all communities of the state.

15 My testimony does not speak to all of the aspects of the statute or of this subject. We are
16 appreciative of the hard work of other intervenors and leaders in the process such as the Consumer
17 Advocate, Clean Energy NH, and partners in the Local Government Coalition, and we hope to work
18 with all parties, utility and non-utility, to help develop a successful Energy Data Platform that is
19 beneficial for the state. Additionally, I would like to contextualize that the current national and state
20 level data available to communities is of insufficient fidelity in order for us to undertake efforts to
21 meet our local and regional energy goals. We have attempted to engage our investor owned utility in
22 the resurgence of these programs to no avail. We have simply exhausted all options. The process is
23 timely, costly, and requires expertise that is not broadly available to most NH communities.
24 Additionally, lack of cohesion and consistency around data requests on an individual and ad hoc

1 basis, in fact, poses greater strain on utility resources and inhibits our ability to access our own
2 information in a replicable fashion. We feel that this increases costs, not lowers costs, to rate payers,
3 as a result.

4 **Q.** What is the current state of customer access to data in New Hampshire as experienced by the
5 Town of Hanover?

6 **A.** In Hanover's experience, it is incredibly laborious, time- and resource-intensive, and costly
7 to gain access to energy data.

8 Hanover undertook an effort to obtain our town wide usage data from our single investor
9 owned utility between 2018 and 2019. We had to leverage regulatory authority that already allows
10 for a data request once per year; experienced significant push back despite the existing authority to
11 do so; were required to obtain and sign non-disclosure agreements (NDAs) and authorizations from
12 the six largest customers in Hanover, which took upwards of six months, to obtain the data from our
13 utility, despite those customers having consented. We were required to obtain written approval by all
14 large users (G-1) before our utility was willing to provide aggregated total usage information.

15 **Q.** What data were you requesting?

16 **A.** Hanover requested total community-wide electricity consumption data organized by
17 customer rate class. This included rate class, and 30 min – 1 hour interval data for a 12 month period,
18 dating back three years.

19 **Q.** What costs did Hanover incur in its attempts to acquire energy data?

20 **A.** The costs incurred by Hanover included staff time of Town Manager, Department of Public
21 Works Director, Planning and Zoning Director, Sustainability Director, and employment of a
22 consultant for six months-time, which consultant alone totaled well over \$14,000 in consulting fees,
23 representing over 35% of our entire program budget. It also delayed development of a baseline

1 benchmark and the analysis and action plan that follows, so there is a cost in terms of delayed
2 progress on our climate action and sustainability goals and potential lost opportunities.

3 **Q.** How long did it take to acquire the data?

4 **A.** It took approximately six months of effort to acquire the data.

5 **Q.** What was the quality of the data received after these efforts?

6 **A.** The data we eventually received was poorly organized data. The data was not provided in a
7 consistent or structured way, which made analyses difficult. In some instances, we discovered
8 inaccuracies in the data. The data immediately began to degrade with time, and there does not appear
9 to be an easy process to replicate our data acquisition efforts. We do not have an easy way to update
10 the data.

11 **Q.** Do believe other cities and towns have similar experiences to Hanover in their attempts to
12 acquire energy data?

13 **A.** Hanover participates in numerous statewide networks related to municipal energy issues
14 include membership with Clean Energy NH, participation a quarterly Municipal Round Table on
15 Energy and Climate convened and facilitated by Conservation Law Foundation, the University of
16 New Hampshire Sustainability Fellows Program, and other networks. Through these networks, it is
17 my understanding that many cities and towns of New Hampshire experience similar difficulty,
18 delay, and cost in attempting to gain access to their energy data, but I cannot speak to the specifics of
19 those communities' experiences.

20 **Q.** For what reasons are you seeking energy data.

21 **A.** In May 2017, the Town of Hanover adopted a commitment to achieving 100% renewable
22 electricity on a community-wide basis by 2030, and 100% renewable transportation and thermal
23 sectors on a community-wide basis by 2050. We are one of several communities in New Hampshire
24 with similar ambitious renewable energy goals. In the Fall of 2017, the Town of Hanover engaged

1 the consultant 3Degrees to help develop our energy strategy. Our top priority at present is 100%
2 renewable electricity. The first step towards achieving this goal is to understand Hanover's total
3 electricity consumption.

4 Baseline data and benchmarking are critical components of achieving our community's
5 energy goals. We need data to motivate residents to invest in energy conservation and green energy,
6 to measure effectiveness of community driven energy efficiency programs like Weatherize
7 campaigns (marketing NHSaves Home Performance with Energy Star [HpWES]), motivating
8 participation in our Solarize public education campaigns, and, perhaps most importantly,
9 implementing Hanover Community Power under RSA 53-E Relative to Aggregation of Electric
10 Customers by Municipalities and Counties. For our Community Power Aggregation, we will need
11 quality data that defines the total community load, customer type, load curves, etc. to be able to
12 procure cost-effective of green power, and implement community-based strategies to shave peaks,
13 deploy local Distributed Energy Resources (DERs) and self-generate at least a portion of our own
14 power for the aggregation. For Community Power Aggregations to be successful, it is critical that
15 communities like Hanover not only have access to data, but also have the ability to regularly update
16 data streams in an easy manner that does not add costs or burden.

17 **Q.** Is there anything else you would like to add to your testimony?

18 **A.** No. This concludes my testimony.