Docket: Rulemaking 20-11-03

ALJ Brian Stevens

Exhibit No. NRG-1

Date: January 11, 2021

Witness: Hugh Douglas Sansom

PREPARED TESTIMONY OF HUGH DOUGLAS SANSOM
ON BEHALF OF NRG ENERGY, INC.

PREPARED TESTIMONY OF HUGH DOUGLAS SANSOM

Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A. My name is Hugh Douglas Sansom; my business address is 4433 Genesee Street, Suite 401, Buffalo, New York 14225.

Q. BY WHOM AND IN WHAT CAPACITY ARE YOU EMPLOYED?

A. I am Managing Director, Distributed Energy Resource ("DER") Sales for NRG Energy, Inc. ("NRG").[1]

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND BUSINESS EXPERIENCE.

A. I studied mathematics at United States Military Academy at West Point earning a Bachelor Science. In addition, I earned my Master of Business Administration from The Wharton School of the University of Pennsylvania. I earned my Professional Engineer license from the Commonwealth of Virginia in 1984. My professional background includes 30 years of experience in sales, operations, and project management. I have 20 years of experience in smart-grid and demand-response business development and project development. I managed sales and field operations to deploy around 550,000 remote control demand response devices with Pepco Holdings, Southern Maryland Electric Co-op, and Central Hudson Gas & Electric. My *curriculum vitae* is attached as Appendix No. HDS-1.

Q. FOR WHOM ARE YOU TESTIFYING IN THIS PROCEEDING?

[1] In this testimony, "NRG" refers to both NRG Energy, Inc. as well as its subsidiaries which provide services in California.

A. I am testifying on behalf of NRG Energy, Inc. In addition, I have reviewed the testimony sponsored by the California Efficiency + Demand Council et al. (the "DR Coalition"), and, on behalf of NRG Energy, Inc., we support the proposals made in that testimony.

Q. HAVE YOU TESTIFIED BEFORE REGULATORY BODIES AND, IF SO, IN WHAT CAPACITY?

A. Yes, I have provided testimony before the Maryland Public Service Commission on a major utility's residential demand-response program. This is the first time I have testified before the California Public Utilities Commission ("the Commission").

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY IN THIS PROCEEDING?

A. The purpose of my testimony is to respond to the Commission's *Order Instituting Rulemaking to Establish Policies, Processes, and Rules to Ensure Reliable Electric Service in California in the Event of an Extreme Weather Event in 2021* ("Order"), Rulemaking 20-11-03. In doing so, I address only the Base Interruptible Program ("BIP"), which is subsumed within Issue 2(d) of the Assigned Commissioner Scoping Memo and Ruling (Dec. 21, 2020) ("Scoping Memo"). This is one of the issues that NRG raised in opening comments on the scope that the Order proposed.[2] At that time, in the interests of expediting this proceeding, NRG offered views both on the scope of the proceeding and on the merits of certain issues. NRG continues to support these positions, but here I offer my testimony to emphasize the importance of a successful program that aligns customer interests with reliable outcomes, and which can easily be expanded before summer 2021.

[2] Opening Comments of NRG Energy, Inc. (Nov. 30, 2020), R.20-11-003.

Q. WHAT CHANGES DO YOU PROPOSE TO THE BASE INTERRUPTIBLE PROGRAM ("BIP") THAT THE COMMISSION CAN IMPLEMENT BY SUMMER 2021, AND THEREBY INCREASE PARTICIPATION?

A. I propose the following changes to BIP:

- Removal of the 2% cap on emergency Demand Response ("DR");
- Allow mid-year enrollment in BIP;
- Revision of Excess Energy Charges;
- Removal of the Load Impact Protocol; and
- Allow Third Party Demand Response Providers to Utilize Back-Up Generation (BUG).

I address each of these issues in turn.

Q. WHY DO YOU PROPOSE REMOVING THE 2% CAP ASSOCIATED WITH THE BIP PROGRAM?

A. Issue 2(d)(ii) identified in the Scoping Memo inquires of parties to this proceeding whether the 2% cap on BIP should be modified. The 2% cap on emergency DR capacity that is not price-triggered and used for reliability purposes was established as part of a settlement agreement reached in 2010 in D.10-06-034 (June 24, 2010).[3] This Decision stipulated that the cap start at 3% of the CAISO system peak, and decline to 2% for 2014 onwards, unless revised in a future proceeding, which has yet to take place. Based on August and September 2020 activations, when analyzing NRG's customers' performance for both BIP and the Capacity Bidding Program ("CBP"), BIP customers within NRG's portfolio consistently performed higher under BIP than the CBP. During the August 14-18, 2020 and September 5-6, 2020 BIP events, NRG's customers performed between 93% and 100% during the emergency events.[4] When reviewing NRG's CBP performance for the summer 2020, for all Investor Owned Utilities ("IOU") CBP programs, NRG's CBP

[3] https://docs.cpuc.ca.gov/word_pdf/FINAL_DECISION/119815.pdf

[4] NRG customer performance is calculated as a daily average of all SubLAPs for each event day in the PG&E service territory.

portfolio of customers performed at 77%, 86%, and 92%. NRG' customer performance data clearly shows that BIP is a reliable source of emergency capacity. The Report on System and Market Conditions, Issues and Performance: August and September 2020, issued November 24, 2020 by the California Independent System Operator's ("CAISO") Department of Market Monitoring[5] indicates preliminary performance reporting for the IOUs' DR programs that reflects performance in the 57% to 65% range for August 14 and 15, 2020 events. However, based on NRG's analysis of event data, for both the BIP and CBP programs, NRG's customers had significantly higher performance than what has been indicated in this report. Therefore, maintaining the 2% cap on this readily available capacity represented in the BIP program in light of potential reliability risks in 2021 artificially limits a program designed for emergencies when it is needed the most.

Q. WHY DO YOU PROPOSE ALLOWING MID-YEAR ENROLLMENT IN THE BIP PROGRAM?

A. As the Order makes clear, California's greatest reliability needs exist in relation to the summer months. So long as DR resources perform in those months, prospective resources should be allowed, at least for 2021 and 2022, to enroll on a mid-year basis in BIP and other DR programs. Allowing third-party Demand Response Providers ("DRP"), or resources, the ability to enroll mid-year, or even monthly, should be explored to increase resource participation in BIP. It is important to note that there are several key data points that go into evaluating whether a DR resource may be enrolled into DR programs (*e.g.*, customer contact, interval data to look at load patterns, development of customer reduction action plans). The evaluation and onboarding process between the customer and the DRP can take several weeks or months to complete. Allowing monthly or mid-year enrollment will allow the aggregator the needed time to collect the critical information needed to enroll resources in the BIP program. Allowing monthly or mid-year enrollments fosters more

[5] ReportonMarketConditionsIssuesandPerformanceAugustandSeptember2020-Nov242020.pdf (caiso.com), page 27.

participation for the BIP program by allowing third-party DRPs to continue marketing the program, which allows additional resources to come online during critical peak periods.

Q. YOU PROPOSE REVISIONS TO "EXCESS ENERGY CHARGES." WHAT ARE EXCESS ENERGY CHARGES?

A. Excess Energy Charges are charges currently assessed on third-party DRPs for Excess Energy[6], which is any energy consumed during a curtailment event that is in excess of a customer's Firm Service Level.

Q. WHY IS IT APPROPRIATE TO REVISE EXCESS ENERGY CHARGES AS PART OF A BIP REFORM FOR SUMMER 2021 RELIABILITY?

A. Excess Energy Charges are well in excess of the Locational Marginal Price ("LMP") paid by IOUs should they be short of energy, and they also do not correspond to prices for resource adequacy. There is a need for an economic signal to ensure delivery of DR when it is called upon, but such signal should be tied to the prices the market surfaces. The penalty should also take account of the fact that DRPs are operating a portfolio of DR resources, and an important part of the business model of those who aggregate typically quite small contributions of individual customers is the offsetting risk profiles of each in providing an aggregate amount of DR to the system.

[6] https://www.pge.com/tariffs/assets/pdf/tariffbook/ELEC_SCHEDS_E-BIP.pdf
https://library.sce.com/content/dam/sce-doclib/public/regulatory/tariff/electric/schedules/general-service-&-industrial-rates/ELECTRIC_SCHEDULES_TOU-BIP.pdf
http://regarchive.sdge.com/tm2/pdf/ELEC_ELEC-SCHEDS_BIP.pdf

Q. WHAT REFORMS DO YOU PROPOSE WITH RESPECT TO EXCESS ENERGY CHARGES?

A. For the time being, NRG believes that the penalty price should be the system average LMP when a BIP resource consumes "excess energy." That is because for the coming summer season, a paramount concern is system needs; the corresponding penalty for failing to provide DR should be a system price measured at that time when BIP DR consumes excess energy. For the same reason, DRPs should be permitted to aggregate their customers' energy reductions at the portfolio level during BIP events. This allows the third-party DRP to seek and obtain additional energy reductions from other customers within its portfolio, thereby reducing or eliminating the penalty charge and still delivering the committed energy needed when BIP is activated. This would assist in aligning incentives of DRPs and customers within BIP to the overall goal of system reliability.

Q. WHY DO YOU PROPOSE EXEMPTING SUMMER 2021 CAPACITY OFFERED BY THIRD-PARTY DRPs FROM THE LOAD IMPACT PROTOCOL REQUIREMENT?

A. Currently, third-party DRPs seeking to qualify as Resource Adequacy ("RA") resources must comply with the Commission's Load Impact Protocols ("LIPs"), which are an ex-ante analysis of a DRP's projected curtailment capability. This requirement, established in D.19-06-026 (June 27, 2019), terminated the exemption of third-party DR resources from the requirement to use LIPs to calculate Qualifying Capacity ("QC"), an exemption which was originally granted in 2016.[7] As of the 2020 Compliance Year, third-party DRPs, like the IOUs, must use LIPs to determine their QC, "unless or until a further exception is established".

The current LIPs were implemented in 2008 in response to Decision D.05-11-009 (November 18, 2005) to develop measurement and evaluation protocols and cost-

[7] *See* D.19-06-026 (June 27, 2019), mimeo, p. 41.

effectiveness tests for demand response offered by the investor-owned utilities. The LIPs continue to serve that role adequately for the IOUs. However, the LIPs are inadequate for determining QC for third-party DRPs for several reasons, including:

- LIPs were designed for the DR programs offered by the IOUs at the time. Their reliability and validity for subsequent DR programs, especially for those offered by third-party DRPs, has not been determined conclusively.
- LIPs require time series containing a sufficient number of participating and non-participating California customers over a sufficient amount of time for their results to be statistically reliable and valid. The ex-ante and ex-post analysis, which are integral to the LIPs, include regression models that require this data at the finest granularity levels possible (e.g., weather sensitivity, location). Third-party DRPs do not have such data specifically for their customers, due to the customer acquisition and churn characterizing competitive markets with customer choice. Ex-ante and ex-post analyses, which are integral to the LIPs, include regression models that require such data ("panel data") for valid, statistically significant results. Some third-party DRPs have attempted to develop their own solutions to this problem, but apparently not to the Commission's satisfaction.
- The LIPs are sufficiently complex that the IOUs engage external consulting firms to perform the required calculations and produce the LIP reports. The associated costs are eligible for rate recovery within Commission-approved budgets, an option not afforded to competitive third-party DRPs.

Meanwhile, DRPs' efforts to comply, albeit imperfectly, with the LIP requirements, have been largely or completely rejected by Energy Division staff after undergoing an arduous review process that would not allow DRPs' resources to participate as Resource Adequacy in time for Summer 2021. For these reasons, NRG requests that the Commission exempt third-party DRPs from LIP requirements and enable these DRPs to focus on adding capacity in a timely manner for emergences during Summer 2021.

Q. WHY SHOULD THE COMMISSION ALLOW FOR THIRD-PARTY DRPs TO UTILIZE BACK-UP GENERATION?

A. My experience implementing NRG's DR programs is that customer interest in enrollment dropped significantly when restrictions applied to Back-Up Generation units ("BUGs") associated with DR programs were implemented.[8] NRG raised this issue in its opening comments in this rulemaking, noting that customers are fatigued by unaccommodating and ever-changing DR program designs.[9] The Commission should seriously consider prioritizing lifting the cap on a popular existing program, as described above, and also facilitating customers' participation in it by temporarily removing the restriction on BUGs under the BIP program.

NRG acknowledges and understands why most fuel-powered BUGs have been prohibited. However, given the current reliability situation in the state, authorizing BUGs to rejoin the BIP program, a load reduction program utilized during statewide and local emergency situations, and assist the State of California in decreasing demand during both the peak demand and net demand peak hours, is warranted. As NRG outlined in its opening comments, there are several sectors, including casinos, data centers, and other customers, needing continuous, non-interruptible operations, that would have the ability to fully participate in California's DR Programs should the Commission lift the BUG ban.[10] These are customers that can easily and quickly be enrolled and are willing to participate, as they had in the past. Excluding customers that operated BUGs resulted in a loss of consistent and reliable load curtailment for the State of California, which could quickly be brought back into the IOUs' BIP programs for the summer 2021. Allowing BUGs to participate in BIP will have a high likelihood of additional customer enrollments that would bring additional supply during reliability events, such as reserve-shortage situations. With much

[8] Decision D.16-09-056. Original Order prohibiting most fossil fuel-powered Back-Up Generation ("BUG") from being used to facilitate customers' participation in several DR programs (BIP, CBP, and DRAM). *See also* Resolution E-4906 and the IOU Advice Letters from PG&E, SCE and SDG&E , respectively.

[9] NRG Opening Comments (Nov. 30, 2020), pp. 3-4, 9-10. R.20-11-003.

[10] NRG Opening Comments (Nov. 30, 2020), pp. 10. R.20-11-003.

needed additional supply for 2021, and beyond, it is important to understand that these DR customers have previously participated in California DR programs and are familiar with the requirements of DR programs. Because this sector of customers had previously participated in these programs, third-party DRP's would have the ability to quickly enroll them into one of California's DR programs. Almost as important is this sector of customers will need little sales effort as third-party DRP's have developed relationships with these customers. This will allow for easy engagement and potential program enrollment.

Q. DOES THIS CONCLUDE YOUR TESTIMONY?

A. It does, although I reserve the opportunity to testify on issues not covered in this testimony on reply as needed.

Appendix HDS-1

HUGH DOUGLAS SANSOM
9 Harvester Court, Sewickley, PA 15143 +1 202-826-5155
Whody32@Yahoo.com

Professional Experience:

- NRG Energy, Inc., (February 2016-Present)
- Comverge (August 2011 – February 2016)-Director/General Manager
- Jarwood Biomass (2010-2011)-Co-Founder
- BPL Global (2007-2010)-Chief Operating Office
- NBC/Comcast (2002-2007)-Senior Vice President
- GTE Wireless (1995-1999)-Assistant Vice President
- Garden Way (1194-1995)-General Manger
- Procter & Gamble (1988-1994)-Brand Manager
- Officer, U. S. Army Corps of Engineers (1977-1986)

Significant Accomplishments and Experience:

Led a 40-person team to surpass sales, profitability, cash flow and business goals/objectives. Exceeded Comverge expectations by growing business $122 million in less than 36 months. Expanded contracts by delivering exceptional customer service and operational excellence. Convinced an Investor Owned Utility to expand into 5 new markets without a competitive bid process. Convinced residents to join an energy saving program despite strong local opposition to the utility. As a result, deployed more than 540,000 Demand Response devices in 48 months, exceeding 50% penetration in Maryland, while exceeding budgeted revenue and profit goals every year. Earned recognition at the national utility industry conference as the best performing smart grid, Demand Response project by being awarded the 2014 POWERGRID International Project of the year.

Developed a Utility Scale Demand Response program. Developed a screening process to identify the best Utility prospects for Demand Response. Simultaneously developed an algorithm to assess if an offer would be acceptable to a prospective Utility and while acceptable to internal corporate financial hurdles. Successfully won 33 MW of Utility and Municipal contracts for NRG. Protocol required those contracts to be given to peers for execution so I could focus on new opportunities. Modified the approved asset-backed Demand Response model to function as an evaluation tool for In-Front-Of-The-Meter, Behind-The-Meter, and Turnkey offers.

Led an acquired business to new records. Selected for the Comcast acquisition team to buy AT&T. Post close, I persuaded the employees of an AT&T division to adopt a merit-based culture. Working collaboratively, we created efficiency programs, deployed operational improvements, and launched new solutions. We improved customer service metrics 20%, reduced overhead 15%, grew revenue 25% and boosted gross margins from 29.5% to 41.3%. Separately, the new merit-based culture led to the largest union decertification in cable industry history.

Built and maintained positive, productive relationships. Launched a monthly TV show to improve employee communication. At no cost, I used a handheld video camera and empty bandwidth on the Comcast cable network to launch a channel dedicated to my team. This 'channel' allowed me to communicate with 2,400 employees and their families across four states direct to their homes and their office. The new Employee Channel resulted in the highest employee satisfaction rating in the company. I also used the bandwidth to improve the company's image among community stakeholders. This resulted in rapid approval of franchise agreements and strong relationships with elected officials.

Developed and implemented effective growth strategies. I improved profitability of BPL Global (a start-up) by focusing the business on a Software as a Service ('SaaS') based solution rather than hardware. Realigned core disciplines to support the new strategy. I led robust sales effort to educate clients. As a result, smart grid solutions grew from annual revenue of $2.7 million to $30 million, and margins grew from 10% to 40%.

Increased profitability by increasing customer satisfaction. After analyzing business practices, I linked sales and operations teams to improve delivery of promises and offers. This change reduced complaint escalations and improved customer satisfaction 22%. Customer service calls dropped from 270,000 to 140,000 per month, saving $29 million per year in call center and field technical support costs. When I expanded the solution to a second market, customer satisfaction improved 25%. Customer service calls dropped from 360,000 to 240,000 per month, saving $37 million per year in call center and technical support.

Developed and executed a new sales channel. I aligned the strategy of the new channel with cellular market conditions and customer expectations. Using a low-cost sales channel, I developed targeted advertising for specific prospect segments. In the first year, I added 108,000 new cellular customers and 451,000 customers in the second year. By the end of the first year, the new direct marketing channel was the most profitable division GTE Wireless with 30% less expense than retail. By the end of the second year, the new channel led GTE Wireless in both revenue and profit.

Led with confidence to deliver strong results. I persuaded Procter & Gamble Senior Management to support dual environmental and efficacy benefits for Dawn. I partnered with International Bird Research and Rescue Center to use Dawn to clean wildlife impacted by oil spills. Together we crafted an endorsement communicating environmental stewardship and exceptional cleaning. We also created a public relations program achieving $10 million in unsolicited advertising in 30-days following the Exxon Valdez oil spill. Dawn dish soap grew behind heavy media delivery of this strategic 2-product benefit. Despite competition, volume

increased by 11%, share by 12% and profit by 18% in one year following the public relations program. The film I shot in Alaska and the marketing program is still used today.

Education:

Bachelor of Science Degree Mathematics, United States Military Academy

Master's Degree in Business Administration, Wharton School of the University of Pennsylvania

Professional Engineer License, state of Virginia