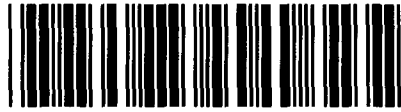


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PUC DOCKET NO. 47472

COMMISSION STAFF'S PETITION TO §
DETERMINE REQUIREMENTS FOR SMART §
METER TEXAS §

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Direct Testimony of

John Schatz

on Behalf of the

Alliance for Retail Markets

and Texas Energy Association for Marketers

October 19, 2017

67

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OF JOHN SCHATZ**

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1 **I. BACKGROUND**

2 **Q. PLEASE STATE YOUR NAME, BUSINESS ADDRESS, AND CURRENT EMPLOYMENT**
3 **POSITION.**

4 A. My name is John Schatz. My business address is 6555 Sierra Drive, Irving, Texas 75039. I
5 am currently employed by TXU Energy Retail Company LLC (TXU Energy) as Manager of
6 Market Relations. I actively participate in various Electric Reliability Council of Texas, Inc.
7 (ERCOT) subcommittees and working groups, as well as develop and maintain productive
8 working relationships with the transmission and distribution utilities (TDUs) that operate
9 in the areas of the ERCOT region open to retail competition. I also monitor and assist in
10 Public Utility Commission of Texas (Commission) rulemaking and contested case
11 proceedings that involve retail market issues within the scope of my responsibilities. I am
12 providing direct testimony in this proceeding on behalf of Alliance for Retail Markets
13 (ARM) and Texas Energy Association for Marketers (TEAM), two coalitions of retail electric
14 providers (REPs) providing retail electric service in the competitive market.

15 **Q. PLEASE DESCRIBE YOUR WORK EXPERIENCE.**

16 A. In 1986, I joined Texas Utilities (a predecessor to TXU Energy) and initially held positions
17 in the Nuclear Fuel Management and Supply Chain divisions. My subsequent positions
18 within the company include senior project manager assigned to large-scale energy
19 efficiency project development, design, and implementation projects, and senior
20 consultant in the area of large commercial and industrial technical consulting. In 2011, I
21 joined the Market Relations team, where I am now employed as Manager. I also currently
22 serve as a Co-Chair of the Advanced Metering Working Group (AMWG), a stakeholder
23 working group that reports to ERCOT's Retail Market Subcommittee (RMS).
24

25 **Q. WHAT ARE YOUR PROFESSIONAL QUALIFICATIONS?**

26 A. In 1985, I received a Bachelor of Business Administration degree in Marketing from Texas
27 A&M University. I am also a Certified Energy Manager.

1 Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE PUBLIC UTILITY COMMISSION OF TEXAS
2 (COMMISSION)?

3 A. Yes. I previously submitted testimony on behalf of TXU Energy and ARM in Docket No.
4 44361, the proceeding in which Sharyland Utilities, L.P. sought approval of an advanced
5 metering system (AMS) deployment plan, AMS surcharges, and non-standard metering
6 service fees.

7 II. PURPOSE OF TESTIMONY

8 Q. WHAT IS THE PURPOSE OF THIS DOCKET?

9 A. Commission Staff (Staff) initiated this proceeding to establish the appropriate scope of
10 business requirements for Smart Meter Texas (SMT). The current SMT business
11 requirements are comprehensively identified in a document filed on September 28, 2017
12 in this docket. This proceeding will determine what additions, deletions, and/or
13 modifications, if any, should be incorporated into the master list of business
14 requirements. The Commission will approve the new comprehensive set of business
15 requirements for purposes of the future operation of SMT.

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

17 A. In my direct testimony, I provide a brief history of SMT, including the collaborative
18 stakeholder processes used to establish its existing business requirements, and describe
19 how the availability of 15-minute interval usage data from the SMT data depository has
20 impacted the competitive retail electric market. I also address how the prohibition
21 against an electric utility's provision of competitive energy services is relevant to the
22 Commission's review of proposed changes to the current scope of SMT business
23 requirements in this docket. Finally, I request the Commission to approve limited
24 additions and revisions to the current scope of SMT's business requirements, for the
25 reasons stated in my direct testimony. This direct testimony was prepared under my

direction, supervision, or control, and is true and correct to the best of my knowledge, information, and belief.

III. DESCRIPTION AND HISTORY OF SMT

Q. WHAT IS SMT?

A. SMT is the common web portal and usage data repository jointly owned and operated by four ERCOT transmission and distribution utilities (Joint TDUs) with Commission-approved AMS deployments. The SMT data repository warehouses the 15-minute interval consumption data for the Electric Service Identifiers (ESI IDs) in the ERCOT region that are assigned to points of electric service delivery at residential and small commercial customer premises with provisioned advanced meters. A September 2017 report submitted by SMT to AMWG states the SMT data repository currently stores 15-minute interval consumption data for approximately 7.3 million ESI IDs in the ERCOT region. Authorized SMT users may access this consumption data through a common web portal that allows them to view, download, or otherwise obtain the usage information through standardized delivery processes. SMT also provides a common interface for home area networks (HAN) that communicate between AMS meters and in-home devices.

Q. PLEASE DESCRIBE'S SMT'S ORGANIZATIONAL STRUCTURE.

A. The four TDUs that jointly own and operate SMT are Oncor Electric Delivery Company LLC (Oncor); CenterPoint Energy Houston Electric, LLC (CenterPoint); AEP Texas (AEP), which formerly operated as two separate TDUs, AEP Texas Central Company and AEP Texas North Company; and Texas-New Mexico Power Company (TNMP). They have entered into a private Joint Development and Operating Agreement (JDOA) that governs the operation and funding of SMT, among other things. They have also contractually engaged an SMT Administrator (currently, IBM) to administer and implement the design and operation of SMT, including its business requirements.

1 The term of the current SMT Administrator service contract with IBM ends on December
2 31, 2018, but it is my understanding that the contract period has been extended by six
3 months until June 30, 2019. I am assuming the latter date remains the date upon which
4 the current contract ends until the Joint TDUs indicate otherwise. The outcome of this
5 proceeding will impact the scope of service requirements in the request for proposals
6 (RFP) the Joint TDUs issue in soliciting bids for the next SMT Administrator service contract
7 commencing on July 1, 2019.

8 **Q. DO THE COMMISSION'S RULES REQUIRE THIS COMMON WEB PORTAL AND DATA**
9 **REPOSITORY?**

10 A. The SMT common web portal and data repository exist as a result of 16 Tex. Admin. Code
11 (TAC) § 25.130, Relating to Advanced Metering. For an electric utility to recover its AMS
12 costs through a Commission-approved AMS surcharge, the rule requires the electric
13 utility's AMS to provide or support specific minimum features, which include (among
14 other things) the capability to provide direct access to customer 15-minute interval usage
15 data to the customer and customer's REP via the electric utility's web portal on a daily
16 basis. The rule also requires the electric utility to provide a customer, the customer's REP
17 of record, and other entities authorized by the customer with read-only access to the
18 customer's advanced meter data, including meter data used to calculate charges for
19 service, historical load data, and any other proprietary customer information.

20
21 In the four years following the adoption of 16 TAC § 25.130 in 2007, the Commission
22 issued final orders approving AMS deployment plans and surcharges for each of the Joint
23 TDUs: Oncor (Docket No. 35718); CenterPoint (Docket No. 35639); AEP (Docket No.
24 36928); and TNMP (Docket No. 38306). Coincident with the onset of those AMS
25 proceedings, open stakeholder discussions led by Staff concluded that a common utility
26 web portal and data repository—as opposed to individual utility web portals and data
27 repositories—was the optimal way to meet the requirements in 16 TAC § 25.130. This
28 approach aimed to achieve uniformity and standardization across all of the Joint TDU

1 service areas with respect to the required implementation of a web portal, data
2 repository, and data access requirements under the advanced metering rule. A joint web
3 portal and data repository also offered potential cost efficiencies for the Joint TDUs.
4 Consequently, all of the Commission's AMS final orders contemplated that each TDU
5 would participate in the development and implementation of a joint web portal and data
6 repository. This jointly owned and operated ERCOT TDU asset was ultimately called
7 "Smart Meter Texas", which is a registered trademark.

8
9 **Q. WHAT PROCESS WAS USED TO FORMULATE THE CURRENT BUSINESS REQUIREMENTS**
10 **FOR SMT?**

11 A. To date, SMT's business requirements are the result of a collaborative stakeholder effort.
12 The core SMT business requirements were designed by the Advanced Metering
13 Implementation Team (AMIT), an ad hoc stakeholder group open to all interested parties
14 that Staff managed under the auspices of Project No. 34610, which was initiated in August
15 2007. In March 2013, the Commission closed Project No. 34610 and dissolved AMIT,
16 transitioning the team's responsibilities to the newly created Advanced Metering
17 Working Group (AMWG), which is subject to the oversight of ERCOT's Retail Market
18 Subcommittee (RMS). Similar to AMIT, participation at AMWG remained open to all
19 interested stakeholders. New and modified SMT business requirements were reviewed
20 and implemented pursuant to a Change Request process conducted at AMWG and RMS.
21 This Change Request process also involved the participation of the JDOA Committee,
22 comprised of the participating TDUs and the SMT Administrator, and the SMT
23 Development Oversight Project (SMT-DO). The SMT-DO was comprised of TDU personnel
24 that estimated the cost and implementation timeline of a proposed Change Request
25 project, prioritized an approved Change Request project, and facilitated the detailed
26 design, development, testing, and implementation of an approved Change Request
27 project.

1 Q. WHAT IS THE STATUS OF THIS CHANGE REQUEST PROCESS IN VIEW OF THE STATED
2 PURPOSE OF THIS DOCKET?

3 A. In September 2014, Staff sought comment on SMT operational structure, cost recovery,
4 governance, and other issues in Project No. 42786. After consultation with Staff, the Joint
5 TDUs notified RMS and AMWG in June 2015 that it would suspend expenditures on any
6 pending Change Requests given the Commission's ongoing review of SMT issues in Project
7 No. 42786. At the time, 31 such Change Requests were pending. The submission of new
8 Change Requests to AMWG subsequently ceased.

9
10 In June 2016, the Commission directed Staff to address issues regarding SMT governance,
11 performance and funding in a separate rulemaking proceeding. Subsequently, Staff
12 opened Project No. 46206 for this purpose, requesting comment on a Strawman Rule
13 proposal addressing those issues. It also initiated another rulemaking project, Project No.
14 46204, to address third-party authorization to access usage data in SMT. At the
15 Commission's direction, Staff closed both rulemaking proceedings in August 2017, before
16 any rules addressing SMT issues were adopted. Soon after the closing of Project Nos.
17 46206 and 46204, Staff filed its petition to determine the business requirements for SMT
18 in this contested case proceeding.

19
20 Given these developments, it is my understanding the Change Request process once used
21 to approve modifications to existing SMT business requirements will no longer be
22 employed. The objective of this contested case proceeding is to establish a
23 comprehensive scope of SMT business requirements. This docket will determine what
24 additions, deletions, and/or modifications, if any, to the current list of business
25 requirements previously developed through the collaborative stakeholder process should
26 be incorporated into the list used in the solicitation of bids for the next SMT Administrator
27 contract.

1 **IV. REP ACCESS TO AND USE OF SMT CONSUMPTION DATA**

2 **Q. DOES THE SMT DATA REPOSITORY STORE AND MAKE AVAILABLE 15-MINUTE INTERVAL**
3 **DATA FOR ALL CUSTOMERS SERVED BY REPS IN THE COMPETITIVE RETAIL ELECTRIC**
4 **MARKET?**

5 A. No. PURA § 39.107 contemplates the deployment of advanced metering and meter
6 information networks for residential and small commercial customers only.
7 Consequently, only the 15-minute interval usage data for ESI IDs associated with those
8 categories of customers is available through SMT.

9 Before the deployment of advanced meters in the areas of ERCOT open to retail
10 competition, 15-minute interval consumption data for residential and small commercial
11 customers served by REPs was not available. Only monthly consumption totals were
12 available for those customers, based on the ERCOT TDUs' monthly meter readings. Now,
13 AMS metering networks facilitate the availability to access customers' 15-minute interval
14 usage data in nearly all of the areas in the ERCOT region subject to customer choice. By
15 the end of 2018, the gap will be closed further once Oncor installs advanced meters for
16 residential and small commercial customers transitioned from Sharyland Utilities
17 pursuant to the recent final order in Docket No. 47469. Once Oncor deploys those
18 advanced meters, the Nueces Electric Cooperative service territory will be the only area
19 in the ERCOT region open to retail competition without an AMS.

20 **Q. HOW DOES A REP ACCESS THE 15-MINUTE INTERVAL CUSTOMER USAGE DATA IN SMT?**

21 A. As stated earlier, the advanced metering rule entitles a REP to access its customers' usage
22 information in the SMT data repository in the provision of retail electric service.
23 According to a September 2017 report provided by SMT to AMWG, 117 REPs are
24 registered to access their residential and small commercial customers' usage data
25 through SMT. A registered REP principally accesses this consumption data in one of two
26 ways. First, the REP may use a secure File Transfer Protocol (FTP) to retrieve files of
27 customer consumption data over the Internet using a browser. Second, the REP may use

1 an Application Programming Interface (API) protocol to obtain files of customer usage
2 data through software components that communicate with each other, that is, machine
3 to machine. While a registered customer can access his or her own usage information
4 through the web portal using a Graphical User Interface (GUI), which allows the individual
5 to interact with SMT using simple visual constructs to collect and produce such data, a
6 registered REP may also leverage the GUI on an ad hoc basis when investigating a
7 customer's query about billed usage or for other purposes related to the provision of
8 retail electric service.

9
10 **Q. HOW HAS THE AVAILABILITY OF 15-MINUTE INTERVAL CUSTOMER USAGE DATA**
11 **ACCESSED FROM THE SMT DATA REPOSITORY AFFECTED RETAIL ELECTRIC SERVICE IN**
12 **THE COMPETITIVE MARKET?**

13 A. The availability of 15-minute interval usage data accessed through SMT has impacted the
14 competitive retail electric market in two principal ways. First, it has fundamentally
15 changed the ERCOT settlement process. In November 2009, ERCOT began to settle the
16 wholesale market based on customers' actual usage, as measured in the 15-minute
17 intervals made available through deployed AMS, rather than upon generic settlement
18 proxy profiles. The use of actual consumption data in the wholesale settlement process
19 links the price of wholesale energy during each 15-minute interval to the customer's
20 consumption in each interval. Consequently, if a REP's customers consume more energy
21 at times when prices in the competitive wholesale market are high (*e.g.*, when resources
22 are scarce), the REP will experience greater exposure to wholesale price risk (and vice
23 versa).

24 Second, access to the AMS 15-minute interval data has facilitated the offering of
25 innovative retail products and services to customers in the competitive retail electric
26 market. A REP may use this data to offer time-of-use (TOU) products that share the
27 economic benefits of load shifting with customers by charging a lower price for off-peak
28 use. A REP may also leverage the 15-minute interval usage data to track customers' daily

usage for purposes of offering prepaid products that avoid the need for deposits or credit checks as a condition to retail electric service. Additionally, a REP may use this more granular consumption data to provide value-added products and services that include customer alerts, usage reports and dashboards, and advanced analytical tools that assist customers to better understand their energy consumption and how such consumption affects their electricity bills. Finally, a REP may utilize AMS 15-minute interval usage data to offer demand response and peak reduction products that reward customers for reducing electricity demand at times of resource scarcity. All of these new and innovative retail products and services are made possible by the availability of AMS 15-minute interval usage data from the SMT data repository. The availability of this data incentivizes REPs to employ the information in ways that inform customers about their electricity usage and enable them to manage their electricity costs.

V. PROHIBITION AGAINST COMPETITIVE ENERGY SERVICES

Q. WHAT IS A “COMPETITIVE ENERGY SERVICE”?

A. A “competitive energy service” is defined by 16 TAC § 25.341(3) as a business activity capable of provision on a competitive basis in the retail market. The rule includes an extensive but non-exhaustive list of competitive energy services, including the provision of information relating to customer usage other than as required for the rendering of a monthly electric bill (16 TAC § 25.341(3)(G)). Notably, the definition of “competitive energy service” in 16 TAC § 25.341(3) is purposely open-ended to encompass a service that is capable of being provided on a competitive basis; it does not require the service to be actually provided in the market on a competitive basis today.

Q. SHOULD THE COMMISSION ADOPT ANY PROPOSED NEW OR REVISED BUSINESS REQUIREMENT THAT ENTAILS THE PROVISION OF A COMPETITIVE ENERGY SERVICE?

A. No. Under 16 TAC § 25.343(c), an electric utility is generally prohibited from providing competitive energy services, with certain exceptions. SMT is an electric utility asset that is jointly owned and operated by four ERCOT TDUs. I read the Commission’s rules to

1 preclude the adoption of any new or revised business requirements that entail a business
2 activity capable of being provisioned on a competitive basis in the retail market, unless
3 the Joint TDUs petition the Commission for authority to engage in the otherwise
4 prohibited activity pursuant to 16 TAC § 25.343(d).

5 **Q. WHAT IS THE RATIONALE FOR THIS PROHIBITION?**

6 A. The justification for this prohibition lies in the separation of business activities in the
7 restructured electric market in Texas, as required by legislation (Senate Bill 7) that took
8 effect in September 1999. One of the first steps in this restructuring process directed
9 each vertically integrated utility in ERCOT to unbundle its competitive energy services
10 from its regulated activities.

11 Under PURA, an ERCOT TDU provides regulated monopoly services. As a regulated entity,
12 the TDU is entitled to Commission-approved rates that permit it a reasonable opportunity
13 to: (1) earn a reasonable return on its used and useful invested capital, and (2) recover its
14 reasonable and necessary operating and maintenance (O&M) expenses. A REP, however,
15 is not entitled under the law to recover its revenues in this manner. Therefore, if a TDU
16 were allowed to provide a competitive energy service, a REP providing the same or similar
17 service would be competitively disadvantaged.

18 **Q. CAN YOU PROVIDE A HYPOTHETICAL EXAMPLE OF A PROPOSED SMT BUSINESS**
19 **REQUIREMENT THAT WOULD CONSTITUTE A COMPETITIVE ENERGY SERVICE?**

20 A. Yes, although I want to emphasize that other types of proposals could also fall into this
21 category. The clearest hypothetical example would be a proposal to package or present
22 15-minute interval consumption data in manner that is capable of being provided on a
23 competitive basis in the retail market. Indeed, many REPs today package, present, and/or
24 communicate end-use customer usage data in a variety of formats (*e.g.*, dashboards,
25 graphs, email usage summaries, usage estimates, budget alerts, disaggregation services,
26 benchmarking, charts, and other interactive tools) to differentiate the retail electric

1 products they offer in the competitive market and to provide enhanced value to their
2 customers.

3 The SMT data repository is the centralized source of raw 15-minute interval usage data for
4 residential and small commercial customers in the ERCOT TDU service areas. In my view,
5 SMT's role should not be to package or present this 15-minute interval data beyond the
6 provision of basic usage information to authorized SMT users.

7 **Q. HAVE YOU REVIEWED THE EXISTING SMT BUSINESS REQUIREMENTS TO DETERMINE**
8 **WHETHER ANY OF THEM CONSTITUTE A COMPETITIVE ENERGY SERVICE?**

9 A. No, I have not. My direct testimony focuses only on the application of 16 TAC §§ 25.341
10 and 25.343 to any new or revised business requirements proposed by the parties in this
11 docket. I did not focus on the application of those rules to the scope of existing business
12 requirements. Given that many of the current business requirements have existed for a
13 number of years, authorized users most likely have an expectation about their continued
14 inclusion within the scope of SMT functionality. In my opinion, none of the new or revised
15 business requirements that I propose in my direct testimony constitute competitive energy
16 services under the Commission's rules. That said, the Commission is not precluded in this
17 proceeding from examining whether an existing business requirement constitutes a
18 prohibited competitive energy service and, if so, eliminating it from the list of SMT business
19 requirements on such grounds.

20
21 **VI. PROPOSED NEW SMT BUSINESS REQUIREMENTS**

22 **Q. DO YOU PROPOSE TO ADD, DELETE, OR REVISE THE CURRENT SCOPE OF SMT BUSINESS**
23 **REQUIREMENTS?**

24 A. Yes. For the most part, I believe the existing scope of SMT functionality and underlying
25 business requirements should remain unchanged. I propose limited modifications to the
26 SMT business requirements listed in the document filed on September 28, 2017. The new
27 and modified business requirements that I propose address the following topics:

- Service level agreements (SLAs), comprised of performance standards and associated metrics, that measure SMT operational performance in various areas;
- Quarterly and annual publicly available reports addressing SMT operational performance based on those SLAs;
- Monthly informational reports currently provided by SMT to AMWG, as well as five new monthly reports previously approved by AMWG and RMS pursuant to Change Requests ultimately not implemented due to the Commission's ongoing review of SMT issues in Project No. 42786;
- Public availability of an annual SMT budget;
- Notification by SMT of a TDU's revision of 15-minute interval usage data stored in the SMT data repository;
- Expansion of the maximum period of interval usage data available through the GUI to 24 months; and
- Prioritization of messages sent through the GUI to home area network (HAN) devices;

I do not propose to delete any existing business requirement in my direct testimony.

Q. PLEASE DESCRIBE YOUR FIRST PROPOSED NEW BUSINESS REQUIREMENT.

A. First, I propose the adoption of a new business requirement that specifies SLAs, comprised of performance standards and associated metrics, that measure SMT operational performance in various areas. These publicly available agreements will establish objective benchmarks in various areas of SMT's operational performance and will incentivize SMT to meet, or even exceed, those benchmarks. These performance standards and associated metrics will be included in the RFP the Joint TDUs issue in soliciting bids for the next SMT Administrator contract.

1 Q. WHY IS THE ADOPTION OF THIS BUSINESS REQUIREMENT IMPORTANT FROM A REP'S
2 PERSPECTIVE?

3 A. The inclusion of performance standards and associated metrics in the next SMT
4 Administrator service contract will facilitate transparency into SMT's provision of services
5 to the market. SLAs will also make SMT accountable to the market by providing
6 measurements of its operational performance based on specific metrics. The availability
7 of 15-minute interval usage data is an integral element of retail market operations in the
8 competitive market, and market participants are entitled to timely insight into SMT's
9 operational effectiveness in delivering this data. Under the current SMT Administrator
10 contract with IBM, there are no publicly available SLAs to inform market participants
11 regarding the levels of SMT operational performance. This absence of performance
12 standards and metrics applicable to SMT must end with the next SMT Administrator
13 service agreement.
14

15 Q. HAS SMT EXPERIENCED INFERIOR PERFORMANCE IN THE PAST?

16 A. Yes. For the six-month period February 2015—July 2015, SMT experienced approximately
17 416 hours of unplanned outages. While SMT operational performance has improved
18 since this period of time, I strongly believe a business requirement delineating specific
19 SLAs that measure SMT operational performance must be incorporated as a business
20 requirement in the next SMT Administrator service contract.
21

22 Q. WHAT SLAS SHOULD BE INCLUDED IN THIS BUSINESS REQUIREMENT?

23 A. On December 2, 2016, the Joint TDUs provided notice of a list of proposed SMT
24 functionality-based performance standards and associated metrics for inclusion in the
25 RFP for the next SMT Administrator service contract in Project No. 42786. At the October
26 12, 2017 technical conference, the Joint TDUs' representative stated the Joint TDUs
27 continued to support the inclusion of these 16 SLAs in the next service contract. I propose

1 these 16 SLAs be incorporated within the scope of SMT's business requirements. The
2 performance standards and associated metrics submitted in Project No. 42786 are
3 included as part of ARM/TEAM-1 Business Requirement on Attachment A to my direct
4 testimony.

5
6 **Q. DO YOU PROPOSE ANY ADMINISTRATIVE OR MONETARY PENALTIES FOR**
7 **SUBSTANDARD PERFORMANCE UNDER ANY OF THE SLAS?**

8 A. No. If future SMT operational performance is consistently substandard during the term
9 of the next SMT Administrator service contract, however, the issue of administrative or
10 monetary penalties should be addressed for purposes of subsequent SMT Administrator
11 service contracts.

12 **Q. DO YOU PROPOSE ANY RELATED REPORTING BUSINESS REQUIREMENT FOR THIS SLA**
13 **BUSINESS REQUIREMENT?**

14 A. Yes. My second proposed new business requirement relates to the publicly available
15 reporting of SMT operational performance under the SLAs I propose. The Staff Strawman
16 Rule proposal in Project No. 46206 required the filing of quarterly and annual reports to
17 address Commission-approved SMT operational performance standards and metrics
18 established in a future proceeding. It also required these reports to include: (a) a detailed
19 explanation for any SMT failure to meet a specific performance metric in the applicable
20 quarter or year and, (b) a plan for meeting the metric in future reporting periods. At the
21 October 12, 2017 technical conference, the Joint TDUs' representative indicated the Joint
22 TDUs' support for applying these reporting requirements to the SLAs filed on December
23 2, 2016 in Project No. 42786.

24
25 In my view, requiring quarterly and annual reports addressing SMT operational
26 performance based on the SLAs approved in this proceeding is reasonable, and should be
27 adopted as a new SMT business requirement. This new business requirement will provide

1 periodic information to the market about SMT's operational effectiveness, as measured
2 by the SLAs in ARM/TEAM-1 Business Requirement. In the absence of this publicly
3 available reporting, those performance standards and associated metrics cannot fulfill
4 their intended goals of transparency and accountability to the market. My proposed SLA
5 reporting business requirement appears as ARM/TEAM-2 Business Requirement on
6 Attachment A to my direct testimony.

7
8 **Q. DO YOU PROPOSE THE ADOPTION OF ANY OTHER REPORTING BUSINESS**
9 **REQUIREMENTS?**

10 **A.** Yes. My third proposed new business requirement relates to monthly SMT informational
11 reports. The first component of this business requirement proposal encompasses the
12 monthly informational reports that SMT currently provides to AMWG. These monthly
13 reports provide useful data to REPs with respect to SMT's ongoing operations. Many of
14 these monthly reports resulted from Change Requests approved by AMWG and RMS, or
15 they were otherwise custom built to address a reporting need identified by stakeholders.
16 The monthly SMT informational reports currently provided to AMWG are:

- 17 1. Monthly SMT Data Timelines End to End File Processing Completeness (implemented
18 via Change Request 2013 002)
- 19 2. SMT AMI and FTPS Services Availability (implemented via Change Request 2013 006
20 and 2013 007)
- 21 3. SMT Number of Accounts by Type (implemented via Change Request 2013 009)
- 22 4. SMT Help Desk Report (implemented via Change Request 2013 005)
- 23 5. SMT On-Demand Read (ODR) Details (implemented without a Change Request)
- 24 6. SMT Third Party Statistics Report (implemented without a Change Request)
- 25 7. Texas HAN Device Test Report (implemented without a Change Request)

26 At the October 12, 2017 technical conference, the Joint TDUs' representative indicated
27 the Joint TDUs' support for the continued production of these publicly available monthly
28 reports. As such, I propose the formal codification of these reports in a new SMT business
29 requirement.

1 Q. DO YOU PROPOSE THE INCLUSION OF ANY OTHER MONTHLY INFORMATIONAL
2 REPORTS IN YOUR THIRD PROPOSED NEW BUSINESS REQUIREMENT?

3 A. Yes. The second component of this business requirement proposal encompasses new
4 monthly reports relating to SMT performance. As I mentioned earlier, several Change
5 Requests were previously approved by AMWG and RMS, but were not implemented due
6 to the Commission's ongoing review of SMT issues in Project No. 42786. Several of these
7 Change Requests address new monthly SMT informational reports that I propose be
8 included within the scope of my proposed new monthly SMT informational reporting
9 business requirement. These additional monthly reports are:

- 10 1. SMT Data Completeness Measurements (Change Request 2013 001, approved
11 3/3/15): This monthly report by each TDU measures the number of records received
12 versus the number of records expected. It provides insight into the functionality of
13 overall TDU AMS systems, and identifies possible operational issues.
14
- 15 2. Measurement of percentage of actual data intervals (Change Request 2013 003,
16 approved 3/3/15): This monthly report by each TDU reflecting daily calculations
17 measures actual intervals received versus total number of intervals received for a
18 consumption day. It provides market insight into usage data integrity and allows
19 market participants to understand the volume of actual 15-minute usage intervals in
20 a timely manner.
21
- 22 3. Measurement of percentage of estimated data intervals (Change request 2013 004,
23 approved 3/3/15): This monthly report by each TDU reflecting daily calculations
24 measures estimated intervals received versus total number of intervals received for a
25 consumption day. It provides insight into usage data integrity and allows market
26 participants to understand the volume of estimated 15-minute usage intervals in a
27 timely manner. Estimated consumption intervals can create issues for customers on
28 pre-paid or TOU retail products.
29
- 30 4. Average time to deliver HAN messages (Change request 2013 008, approved 3/3/15):
31 This monthly report by each TDU reflects individual HAN message type (e.g., pricing,
32 text, load control). It measures the time between when a HAN request is made in SMT
33 to the time the response is returned to SMT. It provides insight into HAN messaging
34 functionality and will help market participants operationalize products/services, as
35 well as help manage customer expectations.

1 5. Average Time from HAN Provision Request to Meter Ready Status (Change request
2 2013 011, approved 3/3/15): This monthly report will indicate by TDU the average
3 time from a "provision request" to achievement of "meter ready" status. This
4 information will represent the time taken for the request to be processed and
5 implemented by SMT and the TDU, and can be used to eliminate possible delays in
6 actual provisioning due to customer delay in moving to "device added" status.
7 Additionally, the report can establish metrics for unsuccessful provisioning attempts,
8 by reporting the percentage of provision requests that do not reach "meter
9 ready"/"device added" status.

10 My proposed new monthly SMT informational reporting business requirement, which
11 includes all twelve monthly reports outlined in my direct testimony, appears as
12 ARM/TEAM-3 Business Requirement on Attachment A to my direct testimony. In
13 proposing to codify these twelve monthly reports as a business requirement, I do not
14 intend to foreclose the possibility of other monthly informational reports in the future, as
15 needed.

16 **Q. DO YOU PROPOSE A BUSINESS REQUIREMENT RELATING TO THE SMT ANNUAL**
17 **BUDGET?**

18 A. Yes. My fourth proposed new business requirement relates to the public availability of
19 SMT's annual budget. Currently, there is no visibility to the market with respect to SMT's
20 annual operating budget. The Staff Strawman Rule proposal in Project No. 46206
21 required the filing of a projected budget for the current calendar year within 45 days after
22 the beginning of the year. My proposed business requirement slightly modifies the Staff
23 Strawman Rule proposal by requiring the public submission of an annual SMT budget
24 within 30 days of the commencement of the calendar year. The public availability of a
25 budget reached by the Joint TDUs and the SMT Administrator by this date will further the
26 objectives of transparency and accountability in the operation of SMT. The need for this
27 financial visibility into SMT costs will be all the more critical once the TDUs are no longer
28 required under 16 TAC § 25.130(k)(5) to submit annual AMS reports specifying their
29 respective allocated shares of historical SMT costs, upon the expiration of their AMS

1 surcharges. My proposed new SMT annual budget business requirement appears as
2 ARM/TEAM-4 Business Requirement on Attachment A to my direct testimony.

3 **Q. DO YOU PROPOSE A BUSINESS REQUIREMENT RELATING TO THE INTEGRITY OF THE 15-**
4 **MINUTE INTERVAL USAGE DATA IN THE SMT DATA REPOSITORY?**

5 A. Yes. My fifth proposed new business requirement relates to SMT notification of a TDU's
6 revision of 15-minute interval usage data in the SMT data repository for the purposes of
7 correcting erroneous interval data or replacing estimated interval data with actual data.
8 While updating customer consumption data in the SMT data repository contributes
9 towards greater data integrity, the lack of any notification from SMT when a TDU re-
10 versions such data presents issues for REPs. Currently, a REP must actively monitor
11 interval data to identify when revisions occur or discover by happenstance any changes
12 while analyzing individual premise usage data in SMT. SMT's proactive notification of TDU
13 revisions to 15-minute interval usage data in the data depository will provide REPs the
14 opportunity to update any consumption information provided to the customer; to timely
15 revise pre-paid service consumption accounting; and to update a customer's bill prior to
16 its release. My proposed new SMT notification business requirement appears as
17 ARM/TEAM-5 Business Requirement on Attachment A to my direct testimony.

18
19 **VII. PROPOSED REVISED BUSINESS REQUIREMENTS**

20 **Q. DO YOU PROPOSE ANY BUSINESS REQUIREMENT REVISIONS RELATING TO THE GUI?**

21 A. Yes, I propose to modify two such business requirements in an identical manner. First,
22 Business Requirement No. 63 (BR-078) requires SMT to maintain: (1) a maximum of 13-
23 months of interval usage data online (accessible via GUI); (2) four years of usage data
24 (accessible via API); and (3) an additional three years of usage data offline (accessible via
25 a batch process), for a total of seven years of accessible usage data. I propose increasing
26 the maximum 13-month period of usage data made available online through the GUI to a
27 maximum period of 24 months. A two-year period of 15-minute interval usage data will

1 provide a REP with a more comprehensive snapshot of a premise's usage history when
2 researching or investigating issues on a customer's behalf. It will better highlight
3 weather-based usage anomalies in diagnosing a customer's consumption patterns, and
4 will assist in the development of more informed contract pricing. My proposed revision
5 to Business Requirement No. 63 (BR-078) appears on Attachment A to my direct
6 testimony.

7
8 Second, I propose a similar modification to Business Requirement No. 37 (BR-001) to
9 reflect the same maximum 24-month period of interval data.

10
11 **Q. DO YOU PROPOSE ANY BUSINESS REQUIREMENT REVISIONS RELATING TO HOME AREA**
12 **NETWORK (HAN) MESSAGING?**

13 A. Yes. By way of background, one of the minimum AMS features required under 16 TAC §
14 25.130 is the capability to communicate with HAN devices inside the premises. This
15 requirement encompasses, but is not limited to, usage monitoring devices, load control
16 devices, and prepayment systems. HAN device communications are based on open
17 standards and protocols that comply with nationally recognized non-proprietary
18 standards such as ZigBee, Home-Plug, or the equivalent. I propose the modification of an
19 existing business requirement relating to the prioritization of HAN messaging, as well as
20 propose the addition of a related new SLA measuring the time period for delivering high
21 priority messages to HAN devices.

22
23 First, Business Requirement No. 104 (BR-053) states that SMT provides an authorized user
24 with the ability to assign a priority to a message sent through the GUI to HAN devices. By
25 way of example, it states demand response and price signal communications should be
26 prioritized above other less critical types of HAN messaging. The note accompanying this
27 business requirement, however, states that while the GUI functionality allows the
28 authorized user to assign a low, medium, or high priority to a HAN message, SMT is not

1 programmed to recognize the priority categorization and process the communication
2 accordingly. In other words, the priority designation is meaningless in the HAN
3 communication process. The disconnect between the ability to prioritize a HAN message
4 and the ability for SMT to recognize the assigned level of prioritization must be remedied
5 to achieve the purpose of this otherwise useless business requirement. For these
6 reasons, I would modify Business Requirement No. 104 (BR-053) by striking the
7 accompanying note qualifying its ineffectiveness as the way to rectify the business
8 requirement's present shortcoming. My proposed revision to Business Requirement No.
9 104 (BR-053) appears on Attachment A to my direct testimony.

10
11 Second, Business Requirement No. 106 (BR-053.002) states SMT has the "ability for High
12 priority messages to be delivered to HAN devices in near real-time". This business
13 requirement relating to the speed of high-priority HAN messaging is equally meaningless
14 unless Business Requirement No. 104 (BR-053) is remedied in the manner I propose
15 above. Furthermore, I also propose the inclusion of a new SLA that addresses the speed
16 at which high-priority messages are delivered to HAN devices, consistent with Business
17 Requirement No. 106 (BR-053.002). This proposed performance standard and associated
18 metric will measure the speed of messaging categorized as high priority to determine
19 whether it is delivered to HAN devices "in near real-time", the terminology used in
20 Business Requirement No. 106 (BR-053.002). I interpret that phrase to require an almost
21 immediate delivery of the message. Consequently, I define the metric in my proposed
22 performance standard as "no greater than one minute".

23
24 The inclusion of this SLA in the SMT business requirements will contribute towards
25 meeting customer expectations about the speed of high-priority HAN messaging in the
26 context of demand response and price signal communications. It will also provide
27 operational certainty to HAN service providers under those scenarios. This proposed

1 additional new SLA appears in ARM/TEAM-1 Business Requirement, along with the 16
2 other SLAs I propose in Section VI. of my direct testimony.

3

4 **Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

5 **A. Yes.**

Note: ARM and TEAM recommend the retention of all Business Requirements, as filed September 28, 2017 in this project, except for the new and revised business requirements stated below.

BR Type	Number	SMT BR Number	Requirements
New	ARM/TEAM-1	n/a	SMT is expected to successfully process over 99.5 percent of all account registrations attempted.
			SMT's planned maintenance window shall be limited to the third Saturday of every month from 12:01 AM Central Standard Time to 12:01 PM Central Standard Time.
			The availability of SMT's GUI is targeted to be over 99.5 percent. This availability will be measured as a percentage of minutes that the service is available compared to the total number of minutes in a given period of time, excluding planned maintenance outage time.
			The availability of SMT's API is targeted to be over 99.5 percent. This availability will be measured as a percentage of minutes that the service is available compared to the total number of minutes in a given period of time, excluding planned maintenance outage time.
			The availability of the SMT's FTP sites is targeted to be over 99.5 percent. This availability will be measured as a percentage of minutes that the service is available compared to the total number of minutes in a given period of time, excluding planned maintenance outage time.
			The availability of SMT's Green Button and Comma Separated Values download functionality is targeted to be over 99.5 percent. This availability will be measured as a percentage of minutes that the service is available compared to the total number of minutes in a given period of time, excluding planned maintenance outage time.
			The availability of customers' electric usage data to RORs via SMT's FTP sites is targeted to be no later than 1 hour after SMT receives such data from the Joint TDSPs. This availability will be measured as

Note: ARM and TEAM recommend the retention of all Business Requirements, as filed September 28, 2017 in this project, except for the new and revised business requirements stated below.

			a percentage of instances that the data is available no later than 1 hour after the SMT receives such data compared to the total number of instances that SMT receives such data, excluding planned maintenance time.
			The availability of customers' electric usage data to customers via SMT's GUI and other authorized parties via SMT's GUI, API, and Third-Party FTP interfaces is targeted to be no later than 8 hours after SMT receives such data from the Joint TDSPs. This availability will be measured as a percentage of instances that the data is available within 8 hours after SMT receives such data compared to the total number of instances that SMT receives such meter data, excluding planned maintenance outage time.
			SMT is expected to correctly process over 99.5 percent of all third-party agreement transactions attempted by SMT users.
			SMT is expected to correctly process over 99.5 percent of all on-demand reads attempted by SMT users.
			SMT is expected to correctly process over 99.5 percent of all HAN transactions attempted by SMT users.
			SMT's average monthly response time to SMT users' calls/emails to the SMT Call Center/Help Desk shall not exceed 60 seconds.
			SMTs help desk abandon call rate should be less than 6 percent.
			SMT's maintenance incident ticket type 1 resolution time should be no greater than 4 hours.
			SMT's maintenance incident ticket type 2 resolution time should be no greater than 24 hours.
			SMT's maintenance incident ticket type 3 resolution time should be no greater than 7 days.
			SMT's delivery of high-priority messages to HAN devices should be accomplished in no more than one minute
New	ARM/TEAM-2	n/a	Public availability of annual and quarterly reports addressing SMT's performance based on the service level agreements in ARM-1. These reports shall be made publicly available within 45 days of the

Note: ARM and TEAM recommend the retention of all Business Requirements, as filed September 28, 2017 in this project, except for the new and revised business requirements stated below.

			end of the relevant calendar year or quarter, and shall include: (a) a detailed explanation for any SMT failure to meet a specific performance metric in the applicable quarter or calendar year and, (b) a plan for meeting the metric in future reporting periods.
New	ARM/TEAM-3	n/a	Public availability of the following monthly reports:
			Monthly SMT Data Timelines End-to-End File Processing Completeness
			SMT AMI and FTPS Services Availability
			SMT Number of Accounts by Type
			SMT Help Desk Report
			SMT On-Demand Read (ODR) Details
			SMT Help Desk Report
			SMT Third Party Statistics Report
			Texas HAN Device Test Report
			SMT Data Completeness Measurements
			Measurement of Percentage of Actual Data Intervals Report
			Measurement of Percentage of Estimated Data Intervals Report
			Average Time to Deliver HAN Messages Report
			Average Time from HAN Provision Request to Meter Ready Status Report
New	ARM/TEAM-4	n/a	Public availability of an annual SMT budget within 30 days of the commencement of the calendar year.
New	ARM/TEAM-5	n/a	SMT notification when a TDU re-versions 15-minute interval usage data in the SMT data repository.
Revised	37	BR-001	Ability to view 15-minute interval usage data, the daily meter reading, and the interval time stamp, up to a maximum of 13 24 months. The units will be recorded in kWh with 3 significant digits to the right of the decimal. Note: REP of Record and TDSPs will have access to 48 months

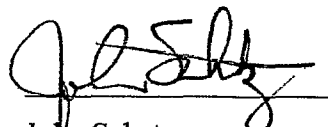
Note: ARM and TEAM recommend the retention of all Business Requirements, as filed September 28, 2017 in this project, except for the new and revised business requirements stated below.

Revised	63	BR-078	<p>Ability to maintain a maximum of 13 24 months of usage data from AMS meters online (accessible via the SMT web portal), and a total of 4 years of usage data accessible via API to REPs in order to conform to ERCOT Protocol Section 17.2.5 (and NODAL 17.3.5) and offline (accessible via a batch process) for 3 more years, for a total of 7 years).</p> <p>Note: All usage data will be available for 4 years online for the REP of record as well as via the API. Customers will be able to access 13 months.</p> <p>Depending on the amount of data being requested, the report may run in the background and the status will be returned to the UI with a link to the FTP site.</p>
Revised	104	BR-053	<p>Ability for an authorized user to assign a priority to a message sent through the common web portal to the HAN devices (i.e., demand response events and price signals should have a high priority and should be sent immediately, etc.).</p> <p>Note: The structure for selecting and applying priorities to messages is there, but SMT is not programmed to recognize or act on the priority</p>

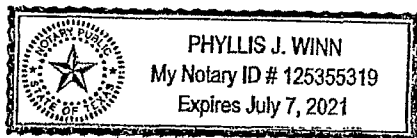
STATE OF TEXAS §
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COUNTY OF DALLAS §

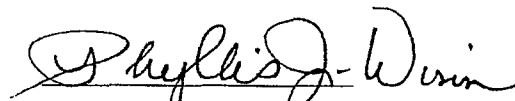
BEFORE ME, the undersigned authority, on this day personally appeared John Schatz, who, having been placed under oath by me, did depose as follows:

My name is John Schatz, I am of legal age and a resident of the State of Texas. The foregoing testimony offered by me is true and correct, and the opinions stated therein are, to the best of my knowledge and belief, accurate, true and correct.


John Schatz

SUBSCRIBED AND SWORN TO BEFORE ME by the said John Schatz this 18th day of October, 2017.




Notary Public, State of Texas

My Commission Expires:

July 7, 2021