## BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

DOCKET NO. 11A-1001E

# IN THE MATTER OF THE APPLICATION OF PUBLIC SERVICE COMPANY OF COLORADO FOR APPROVAL OF THE SMARTGRIDCITY COST RECOVERY

# RECOMMENDED DECISION OF ADMINISTRATIVE LAW JUDGE PAUL C. GOMEZ DENYING APPLICATION FOR SMARTGRIDCITY COST RECOVERY WITH PREJUDICE

Mailed Date: January 17, 2013

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## I. STATEMENT

- 1. On December 14, 2011, Public Service Company of Colorado (Public Service or Company) filed an Application for SmartGridCity (SGC) Cost Recovery (Application). Public Service seeks to recover the balance of the capital investment costs it incurred related to the SmartGridCity project that were not included in rate base per Decision No. C11-0139 in Docket No. 10A-124E issued February 8, 2011. Along with its Application, Public Service filed the direct testimony and exhibits of Michael G. Lamb, Lynn L. Worrell, Victor R. Huston, Jonathan S. Adelman, Jennifer B. Wozniak, and Daniel J. James. In addition, Public Service filed supplemental direct testimony from Michael G. Lamb and Jonathan S. Adelman.
- 2. By Decision No. C12-0110, issued February 2, 2012, the Commission deemed the Application complete and designated Commissioner Matt Baker as Hearing Commissioner in this matter.
- 3. Intervenors in this matter include: the Colorado Office of Consumer Counsel (OCC); the City of Boulder (Boulder); Climax Molybdenum Company and CF&I Steel, L.P. (Climax/CF&I); and Ms. Leslie Glustrom.

- 4. Decision R12-0233-I, By No. issued March 2, 2012, Hearing Commissioner Baker adopted a procedural schedule and extended the time for a Commission decision in this matter for an additional 90 days, such that a Commission decision would issue on or before August 30, 2012 which coincided with the 210-day timeframe in accordance with § 40-6-109.5(1), C.R.S. In addition, administrative notice was taken of the evidentiary records in Docket Nos. 09A-796E, the Application of Public Service for an Order Approving a SmartGridCity Pricing Pilot, and 10A-124E, the Application of Public Service for an Order Approving a Certificate of Public Convenience and Necessity (CPCN) for SmartGridCity. Administrative notice was also taken of the filings in Docket No. 10I-099EG concerning an Investigation of Issues Related to Smart Grid and Advanced Metering Technologies.
- 5. Hearing Commission Baker set the scope of this proceeding by Decision No. R12-0233-I as well. Citing Commission Decision No. C11-0139, he reiterated the Commission's areas of concern and the information it expected to receive in this proceeding. In addition, he provided his own topics he expected to be addressed at the evidentiary hearing.
- 6. Hearing Commissioner Baker resigned his position prior to the evidentiary hearing he scheduled in this docket By Decision No. C12-0379, issued April 12, 2012, the Commission referred this matter to an Administrative Law Judge (ALJ) for the issuance of a Recommended Decision. The matter was subsequently assigned to the undersigned ALJ.
- 7. Due to a settlement agreement reached in Public Service's rate case in Docket No. 11AL-947E; the departure of Commissioner Baker; and the additional work required by several parties to this proceeding who were also parties to Docket No. 11AL-947E, Public Service and the Intervenors requested in a joint motion that a new procedural schedule be adopted which set an evidentiary hearing for August 1 and 2, 2012 and set a due date

for the filing of closing statements of position on August 31, 2012. By Interim Decision No. R12-0392-I, issued April 13, 2012, the joint motion to modify the procedural schedule was granted. Because the date for filing closing statements of position exceeded the 210-day statutory deadline pursuant to § 40-6-109.5, C.R.S., to issue a decision in this matter, Public Service's agreement to the amended procedural schedule effectively waived that statutory deadline.

- 8. In a motion regarding the scope of the proceeding filed on June 29, 2012, Public Serviced expressed concerns regarding the answer testimony filed by the Intervenors, arguing that some of the matters raised there had already been addressed and decided by the Commission in Docket Nos. 10A-124E or 09A-796E. By Decision No. R12-0780-I, issued July 11, 2012, the motion was granted, in part, and denied, in part. It was found that the Commission intended all the concerns raised in Decision No. C11-0139 to be addressed when the Company sought to recover its remaining investment in SGC. It was also found that the scope of this proceeding was further expanded to include the issues identified by Hearing Commissioner Baker in Decision No. R12-0233-I.
- 9. The OCC filed the answer testimony and exhibits of Wilson Gonzalez and Frank Shafer. Boulder filed the answer testimony and exhibits of Kelly B. Crandall and Kara F. Merz.
- 10. Public Service filed rebuttal testimony and exhibits of Karen T. Hyde, Daniel J. James, Victor R. Huston, Michael G. Lamb, and Jennifer B. Wozniak.
- 11. At the scheduled time and place the evidentiary hearing was conducted.

  All parties entered appearances.

12. Company witnesses Hyde, Lamb, Worrell, James, Huston, Wozniak, and Adelman testified on behalf of Public Service at the evidentiary hearing. Witnesses Gonzalez and Shafer testified on behalf of the OCC, and witnesses Crandall and Merz testified on behalf of Boulder.

- 13. Hearing Exhibits 1 through 20, 22 through 45, 47, and 48 were admitted into evidence. Exhibit 46 was not offered. Exhibit 21 was not admitted. Confidential Exhibit No. 9 was marked as 9C.
- 14. Post hearing statements of position were filed by Public Service, Climax/CF&I, Boulder, OCC, and Ms. Glustrom.

# II. <u>DISCUSSION AND FINDINGS</u>

15. In its Application, Public Service seeks to recover the balance of its capital investment costs in SGC, approximately \$16.6 million. That balance remains from Docket No. 10A-124E, in which Public Service sought a CPCN for SGC. By Decision No. C11-0139, issued February 8, 2011, the Commission capped recovery of SGC costs at \$27.9 million "unless and until the Company demonstrates to [the Commission's] satisfaction that it has completed the unfinished aspects of the SGC project." The Commission's Order and its bearing on this Docket are discussed in more detail *infra*.

### A. Brief SGC History

- 16. A brief history of SGC is appropriate in order to place this docket in proper context.
- 17. According to Public Service, it made the decision to go forward with SGC in 2008 by integrating and deploying emerging "smart grid" technologies in a comprehensive and interdependent manner in a small municipality so it could make a realistic appraisal of the

<sup>&</sup>lt;sup>1</sup> Decision No. C11-0139, Docket No. 10A-124E, p.6, ¶20.

technologies' capabilities.<sup>2</sup> The Company characterizes SGC as a first of its kind demonstration project comprised of a suite of technologies which distinguishes SGC from other smart grid projects around the country, which, according to Public Service, consist mainly of Advanced Metering Infrastructure (AMI) projects.<sup>3</sup>

- 18. Public Service characterizes SGC as consisting of five major components:<sup>4</sup>
- 1) the distribution communications and monitoring systems which allow the exchange of information between people and systems;
- 2) the premise level systems which are meant to collect, communicate, display and act upon information at the customer premises;
- 3) the substation and feeder level control and monitoring systems which are meant to improve how substations and feeders are operated and maintained;
- 4) the information systems infrastructure which should allow the timely exchange of information between customers and systems; and,
- 5) the development, testing, and control facilities which are to provide a centralized environment to facilitate the creation and testing of the SGC environment.
- 19. SGC was implemented in four phases, according to the Company. The first phase was the core infrastructure construction. The second phase involved the development of the new integrated application environments, while the third phase was the testing and process maturity period. Finally, the fourth phase was focused on the deployment of the remaining premise level equipment and completion of a Value Proposition Analysis (VPA).
- 20. Several other previous dockets described below are related to SGC in some form and play some role in informing the outcome here.

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<sup>&</sup>lt;sup>2</sup> Verified Application of Public Service Company of Colorado for SmartGridCity Cost Recovery at p. 2 and Public Service's Closing Statement of Position (SOP) at p.3.

<sup>&</sup>lt;sup>3</sup> Public Service SOP at p. 3.

<sup>&</sup>lt;sup>4</sup> *Id.* at p. 4.

### 1. Docket No. 09AL-299E – Public Service's Electric Rate Case

21. Docket No. 09AL-299E was Public Service's Phase I Electric Rate Case. There, based in part on a post-hearing settlement agreement entered into between Public Service, Staff, the Colorado Energy Consumers, and Energy Outreach Colorado, the Commission found it necessary to require a CPCN for SGC since the project was not in the ordinary course of business due to its cost magnitude (then at \$42 million), since it was the first time deployment of several technologies, and was due to the elaborate financing and intellectual property arrangements associated with SGC.<sup>5</sup> The Commission reasoned that requiring a CPCN for SGC would allow it "to examine whether the costs incurred were prudent and in the public interest," and to monitor costs in the future. The Commission also provided that Public Service could seek recovery for the costs associated with SGC, pending the CPCN proceeding.<sup>7</sup> Additionally, the Commission indicated that it intended to open a separate investigatory docket to delve into issues related to SGC as a pilot project.

# 2. Docket No. 09A-796E – Public Service's SGC Pricing Pilot Application

22. In November 2009, Public Service sought Commission approval of a pilot to test three rate options for residential customers within the SGC program in Boulder, Colorado. The three pilot rate options included a Time-Of-Use (TOU) rate, a Critical Peak Pricing (CPP) rate, and a Peak Time Rebate (PTR) which were approved (as modified by a settlement agreement entered into between Public Service, Boulder, and the Governor's Energy Office) by the Commission in Decision No. C10-0491 issued May 19, 2010.

<sup>&</sup>lt;sup>5</sup> Decision No. C09-1446 in Docket No. 09AL-299E issued December 24, 2009 at ¶186, p. 59.

<sup>&</sup>lt;sup>6</sup> *Id*. at ¶188.

<sup>&</sup>lt;sup>7</sup> *Id.* at ¶189.

23. In addition, the Commission also approved an approach where the pricing pilot program was to be implemented in two phases. The first phase would entail 2,000 volunteers with smart meters who would elect to take service under one of the three proposed rates – TOU, CPP, or PTR. Phase I was to run from October 1, 2010 through September 30, 3013. The second phase would entail the random selection of 5,000 customers with smart meters in SGC. Those randomly selected customers would have the choice of selecting the rate they want subject to specific conditions put in place by the Commission. The timeframe for the second phase was set at March 1, 2011 through September 30, 2013.

# 3. Docket No. 10A-124E - Public Service's CPCN Application for SGC

- 24. Docket No. 10A-124E was Public Service's Application for a CPCN for SGC. By Recommended Decision No. R10-1158, issued October 27, 2012, the ALJ recommended that the Commission find that Public Service be granted a CPCN for the SGC project and that the entire cost of SGC of \$44,526,598 be found to be prudently incurred. However, by Decision No. C11-0139 (Order on Exceptions issued February 8, 2011), the Commission overturned the ALJ's findings, in part, and made several specific findings that are principal to this proceeding.
- 25. The Commission expressed several concerns regarding SGC including a question as to whether SGC could "achieve enough of its potential to justify its higher-than-anticipated costs." The Commission was of the opinion that SGC was still in the development stage and that Public Service, up to that point, had not fully evaluated the capabilities of SGC. The Commission was not assured that those capabilities would likely be realized and expressed

<sup>&</sup>lt;sup>8</sup> Decision No. C11-0139 in Docket No. 10A-124E issued February 8, 2011 at ¶17, p. 5.

concern whether SGC would become an integral part of the distribution system on a going-forward basis.<sup>9</sup>

- 26. Additionally, the Commission found a lack of detail regarding the planned use of the project going forward. While the Commission saw some merit in the Company's VPA and the SGC pricing pilot approved in Docket No. 09A-796E, it nonetheless found information lacking about the SGC project. Because the Commission found it important that SGC achieve benefits in a cost effective manner, it also directed Public Service to "articulate and defend a strategic plan for the use of SGC investment." The Commission directed Public Service to demonstrate "the credible promise of consumer and utility benefits sufficient to justify the cost overruns." Public Service was further directed to provide additional information regarding "the ability of customers to make practical use of SGC on their side of the meter through in-home devices, and [regarding] the interconnectability of SGC with those customer devices." <sup>12</sup>
- 27. Due to the paucity of information in Docket No. 10A-124E concerning the benefits and achievements of SGC to that point, the Commission found that Public Service was only entitled to recover \$27.9 million of its investment in SGC "unless and until the Company demonstrates to [the Commission's] satisfaction that it has completed the unfinished aspects of the SGC project."<sup>13</sup>
- 28. Further demonstrating its concerns regarding SGC, the Commission stated that Public Service needed to "reboot" the SGC project to restore some of the promise it originally

<sup>&</sup>lt;sup>9</sup> *Id*.

<sup>&</sup>lt;sup>10</sup> *Id*. at ¶19.

<sup>&</sup>lt;sup>11</sup> *Id*.

<sup>&</sup>lt;sup>12</sup> *Id*.

<sup>&</sup>lt;sup>13</sup> *Id*. at ¶20.

held.<sup>14</sup> Lastly, in order for Public Service to attempt to recover the remaining balance of SGC investment, *i.e.*, the \$16.6 million at issue in this proceeding, the Commission directed the Company to demonstrate that SGC "has a coherent and valuable future ..."<sup>15</sup> In addition, the Company was required, at a minimum, to show how advisory groups were being engaged, to identify its smart grid investments, and to explain how those investments or the knowledge gained would benefit customers and grid operations.<sup>16</sup>

# 4. Docket No. 10I-099EG – Investigatory Docket Regarding Smart Grid and Advanced Metering Technologies

- 29. This Investigatory Docket was opened by the Commission in order to explore issues related to smart grid and advanced metering technologies. The stated goal of the Commission was to achieve a better understanding of the potential benefits and challenges represented by smart grid technologies which included the SGC project.<sup>17</sup>
- 30. As part of its findings set forth in Decision No. C11-0406, issued April 19, 2011, the Commission concluded that electric utilities should be directed, through a rulemaking proceeding, to file periodic smart grid plans which address anticipated investments in smart grid technologies associated with the utility's entire system, from generation to the customer meter. <sup>18</sup> The Commission envisioned that a smart grid plan would explain the function, cost, and objectives of each smart grid investment, including direct benefits and anticipated and synergistic benefits. <sup>19</sup> In addition, the proposed rulemaking should also impose a requirement that an application be filed when utilities anticipate upgrading automated meters to smart meters.

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<sup>&</sup>lt;sup>14</sup> *Id*. at ¶23.

<sup>&</sup>lt;sup>15</sup> *Id*.

<sup>&</sup>lt;sup>16</sup> *Id*. at fn. 3.

<sup>&</sup>lt;sup>17</sup> Decision No. C11-0406, Docket No. 10I-099EG, issued April 19, 2011, ¶1, p.2.

<sup>&</sup>lt;sup>18</sup> *Id.* at ¶10, p.5.

<sup>&</sup>lt;sup>19</sup> *Id*.

31. The Commission noted that one of the primary benefits of smart meter installation is as a platform for dynamic pricing.<sup>20</sup> The Commission also envisioned the use of "diffusion of innovation" (which explains how product acceptance occurs in a market), as well as customer segmentation, product targeting, and related marketing and communications concepts as relevant to implementing smart meters and dynamic pricing effectively.<sup>21</sup>

- 32. The Commission determined that a key to smart grid success was customer education. The Commission envisioned developing performance metrics specifically tied to consumer education and engagement which could include quantifications of consumer awareness, understanding, interest, participation, and satisfaction.<sup>22</sup>
- 33. Finally, referencing Decision No. C11-0139 in Docket No. 10A-124E and the statement there that Public Service needed to re-boot the SGC project, the Commission noted that SGC could function as a valuable learning platform in many of the areas addressed in the Investigatory Docket where further information and knowledge are needed, such as consumer segmentation and behavioral analyses; comparisons of various feedback strategies with varying technological complexity and cost; and, an assessment of the effectiveness and cost of various consumer education and outreach approaches.<sup>23</sup>

### **B.** The Parties' Positions

#### 1. Public Service's Position

34. According to Public Service, the standard applied in Docket No. 10A-124E was a traditional prudence analysis, which analyzed the issue of whether the Company acted prudently

<sup>&</sup>lt;sup>20</sup> *Id.* at ¶12, pp.5-6.

<sup>&</sup>lt;sup>21</sup> *Id.* at ¶14 and 15, p.6.

<sup>&</sup>lt;sup>22</sup> *Id.* at ¶19, p.8.

 $<sup>^{23}</sup>$  *Id.* at ¶32, p.13.

based on the knowledge it had when it made the decision to proceed with and implement SGC.<sup>24</sup> With respect to the scope of this proceeding, as established by Decision No. C11-0139, Public Service maintains that it is logical, since all Public Service customers are paying for SGC through retail rates, that the Commission wanted the Company to demonstrate how it is actually applying what it has learned from SGC elsewhere on its system.

- 35. Additionally, Public Service assumes that since Hearing Commissioner Baker took administrative notice of the Investigatory Docket, SGC is to be viewed in a broader context in this proceeding as compared to the context in Docket No. 10A-124E. The Company concludes that its testimony and evidence in this proceeding is consistent both with what the Commission contemplated in Decision No. C11-0139 and with the Commission's interest in the Company's overall grid modernization strategies.
- 36. Along these lines, Public Service contends that it undertook SGC as a testing platform in order to determine what smart technologies could be deployed elsewhere on its system feasibly and in a cost-effective manner. It emphasizes in its Statement of Position that the point of the project was not to decide whether to replicate the entire project over its entire system, but rather to test smart technologies.
- 37. Further, Public Service insists that its use of SGC as a testing platform was well understood by Boulder and was established in several documents identified in Company witness Mr. Lamb's rebuttal testimony.<sup>25</sup> Among those documents is MGL-4 to Mr. Lamb's rebuttal testimony which purports to be a memorandum issued by the Boulder City Manager and

<sup>&</sup>lt;sup>24</sup> See, Public Service Company of Colorado's Statement of Position, p.13

<sup>&</sup>lt;sup>25</sup> See, Hearing Exhibit No. 11.

Boulder witness Ms. Mertz, which Public Service claims indicates that Boulder knew that the main point of SGC was to test unproven technologies.

- 38. The Company also points to its Hearing Exhibit No. 3, Company witness Mr. Huston's direct testimony at MGL-8, p. 9 which purports to be a memorandum from Ms. Mertz suggesting an understanding on Boulder's part that the success of the customer-facing aspects of SGC would be dependent on customer behavior. Public Service believes that Boulder also understood in 2008 that SGC involved more than customer-facing benefits as evidenced in opening comments made by Ms. Mertz at an October 28, 2008 study session before the Boulder City Council where she commented on SGC as a project that uses communications and computing power to essentially upgrade the electric power grid in order to operate more efficiently and reliably and support additional services for consumers.<sup>26</sup>
- In commenting on the use of the VPA,<sup>27</sup> Public Service remarks that it identified 39. 68 value propositions that it wished to analyze. Public Service explains that it retained MetaVu to complete this analysis, in response to the Commission's concerns in Decision No. C11-0139 that nothing in the settlement agreement in Docket No. 10A-124E required Public Service to complete the VPA and to report the findings to the Commission.
- 40. In response to the Invervenors' criticism of the MetaVu report during the evidentiary hearing, the Company maintains that its review and edits of drafts of the report do not undermine the independence of MetVu's review. Public Service claims that preparation of the report could not have been completed without the involvement of Company personnel and, without such participation, the report could have been subject to criticism that it was incomplete.

<sup>&</sup>lt;sup>26</sup> Hearing Exhibit No. 22 at p.2.

41. Public Service also maintains that there is no evidence that its input into the drafts had any impact on the thoroughness or independence of the MetaVu report. Further, because smart grid technologies and capabilities are evolving at such a rapid rate, Public Service argues that a report that assesses their effectiveness is merely a snapshot in time. It concludes that the Intervenors have failed to undermine the report or any of the conclusions of the value propositions.

- 42. The Company explains that it has also learned from SGC in ways other than the VPA. Public Service contends that SGC has enabled it to determine what it would take to support future environments from not only a technology perspective, but also from resource and process perspectives.<sup>28</sup> For instance, Public Service cites the lesson of how to handle large amounts of data in an SGC environment.
- 43. Public Service also contends that SGC is helping it gain a better understanding of customer behavior. Company witness Ms. Wozniak explains that the Company learned that SGC customers are more willing to participate in behavior change activities if the corresponding presentation of energy data and tools are kept simple and convenient to use.<sup>29</sup> Ms. Wozniak further characterizes initial feedback from SGC participants as primarily positive.
- 44. One of the directives of Decision No. C11-0139 was for Public Service to present a strategic plan for the use of SGC investment. As part of its presentation of a strategic plan for SGC, Public Service lists seven bullet points in its Statement of Position (pp.26-27). Those bullet points include: 1) continue to operate SGC; 2) continue to manage the IT infrastructure and security; 3) apply lessons learned and continue to learn from SGC and value propositions;

<sup>&</sup>lt;sup>28</sup> Hearing Exhibit No. 3, Huston direct testimony at pp. 5-10.

<sup>&</sup>lt;sup>29</sup> Hearing Exhibit No. 5, Wozniak direct testimony at p. 5.

4) complete existing pricing pilot and in-home smart device (IHSD) pilots; 5) continue to evaluate new pilot ideas and opportunities; 6) continue to engage the Advisory Council; and, 7) focus on internet based solutions for IHSD and evaluate "SEP 2.0" as well as conduct other testing and evaluation of smart grid technologies elsewhere on the Company's system. In addition, Public Service represents that it interprets the directive for a strategic plan not to require a specific document, but instead that the whole of its presentation should "articulate and defend" how the Company is using and will continue to use SGC investment to benefit its ratepayers. To that end, Public Service describes how its witnesses provided details as to how SGC has been integrated into its distribution system in Boulder and how that investment improved service to ratepayers.

- 45. For instance, Public Service provides examples of customers benefitting from SGC investment even when they do not realize it, such as reduced energy usage through voltage optimization. Testimony by Public Service witnesses also includes descriptions of current pilot programs and discussions regarding grid modernization strategies which the Company contends are a direct outgrowth of evaluations of how smart technologies could be used on its utility system.
- 46. Public Service also provides examples of how SGC plays an important role in grid modernization, as it helps inform the Company where further deployment of technologies is feasible or is instead premature. Public Service notes that its Advanced Meter Reading (AMR) system is economical and AMI is not needed on its system to realize many of the contemplated benefits.<sup>30</sup> The Company contends that the value of this specific lesson is well beyond the

<sup>&</sup>lt;sup>30</sup> Hearing Exhibit No. 7 Lamb supplemental direct testimony p.7.

initial investment of \$44.5 million given that other utilities have pursued smart meter projects at great expense.31

- 47. Another example of how SGC provides value is with grid modernization through Distribution Voltage Optimization (DVO). Public Service indicates that where DVO capability has been deployed, voltage can be monitored through a feeder, not just at the substation, which allows the voltage to be managed more effectively and, in some instances, lowered.
- 48. In addition, the Company notes its ongoing and future pilots. The three current pilot programs are the SGC pricing pilot, the IHSD pilot, and the electric vehicle pilot. As for criticism regarding customer dissatisfaction with the pricing pilot, Public Service points out that it followed the lead of the Commission in modifying the project which required a compulsory approach for customer participation in order to assess customer response.<sup>32</sup> Public Service maintains that it continues to consider feedback from the Advisory Council and Additionally, the Company indicates a willingness to accept has adopted some ideas. suggestions for other pilots.
- 49. Because of heavy criticism by the Intervenors regarding the lack of SGC customer facing benefits and setbacks encountered by the Company in attempting to deploy IHSDs, Public Service points to the lessons it learned from SGC regarding IHSDs, namely that it was better to go in a different direction in order to offer more benefits to its ratepayers. Public Service states that what is important is that the Company has now deployed IHSDs in the pilot program for testing and evaluation in both SGC and other areas of its system.

<sup>&</sup>lt;sup>32</sup> Hearing Exhibit No. 15 Mr. James rebuttal testimony at p.4, citing Decision No. C10-0491 at ¶81.

- 50. That the Company is testing an IHSD solution that is not "tethered" to SGC infrastructure, but which can be deployed and tested both inside and outside of SGC, is deemed a positive step by Public Service. The Company originally expected that the IHSD selected would communicate through the broadband over power line (BPL) network installed in SGC, although there were different methods by which the smart meter and IHSD could communicate, including via the internet. Responding to complaints by Boulder and the OCC that the IHSD does not directly communicate with the Company's BPL network, Public Service takes the position that this is not a significant flaw in its approach to SGC or the IHSD pilot. Rather, the Company asserts that the goal of SGC was not simply to provide enhanced service to Boulder ratepayers; instead, it was to test and determine what emerging smart technologies could be deployed elsewhere on its system.
- 51. Public Service indicates that it is willing to make several additional commitments regarding the future of SGC such as expanding the Advisory Council to include Boulder, the OCC, Commission Staff, and the Colorado Energy Office. The Company would also be amenable to suggestions from the Advisory Council to initiate one new pilot, based on Commission approval for the pilot and any associated cost-recovery. In the alternative, Public Service proposes submitting the idea to the DSM Roundtable under its currently approved demand side management (DSM) plan. In the event a proposed pilot not be pursued by the Advisory Council or declined by the Commission, Public Service would confer with the Advisory Council to propose an alternative pilot under the same process. Public Service would commit to follow this process annually to develop at least one new pilot each year for the next five years.

52. Finally, Public Service argues that when Decision No. C11-0139 is read as a whole, the Commission already determined that the \$44.5 million in capital expenditures for SGC was prudent. In support of its contention, Public Service points to Paragraph No. 36 of Decision No. C11-0139 in which the Commission states:

We agree with Public Service that the Commission directed a determination of prudence to include both the initial planning and implementation stages of the SGC project. We also find that the Recommended Decision provides an adequate explanation of why the \$44.5 million in costs listed in Attachment 1 to the Settlement Agreement are prudent. We generally find the ALJ has provided an adequate basis for the recommendations given.

53. Public Service concludes that given the language of Paragraph No. 36 of Decision No. C11-0139, the Commission sought the forward-looking showing that the Company has made here. The Commission did not intend this proceeding to be used to revisit issues expressly decided in the CPCN proceeding, Docket No. 10A-124E. Therefore, Public Service asserts that the issue of prudent capital investment in SGC has already been decided by the Commission and any reference to it here by the intervenors is a collateral attack on a previously decided issue.

### 2. Boulder's Position

54. Boulder argues that Public Service failed to meet the standard for additional SGC cost recovery required by the Commission in Decision Nos. C11-0139 and R12-0233-I. While this is the third attempt by Public Service to recover all of its SGC investment costs, Boulder's position is that this docket differs from the previous rate case, Docket No. 09AL-299E, and the CPCN proceeding, Docket No. 10A-124E, in that the Commission has provided Public Service with a clear path for additional recovery. Boulder notes that the Commission articulated what information it required in order to justify approval of the balance of SGC costs, including a strategic plan for the use of SGC investment, a credible promise of consumer and utility benefits to justify the cost overruns, additional information on the benefits on the consumers' side of the

meter, and additional information on the interconnectability of SGC and IHSDs. Boulder disputes Public Service's claim that it provided such information in this proceeding and therefore failed to meet its burden of proof.

- So. Boulder takes the position that understanding the language of Decision No. C11-0139 is critical in determining whether Public Service has met its burden of proof here. Boulder points to Paragraph Nos. 16 through 23 of that order as providing the framework for what Public Service was required to show. Of significant importance is the Commission's language at Paragraph No. 23 that "[i]f the Company demonstrates in a future application that the SGC project has a coherent and valuable future, we **may allow** the Company to recover the balance of the investment disallowed in [Docket No. 10A-124E]." (Emphasis supplied). Boulder interprets that statement to mean that there is no guarantee that further cost recovery will be approved.
- So. Boulder also takes exception with Public Service's interpretation of Decision No. C11-0139. Boulder maintains that the Company appears to focus nearly exclusively on the footnote in Paragraph No. 23 which states that a "future application should at a minimum, summarize how advisory groups are being engaged, indentify smart grid investments and how such investments (or the [k]nowledge gained) will benefit customers and grid operations." Boulder attributes that focus to Public Service's assertion in its Statement of Position in Docket No. 10A-124E that the first three phases of SGC were complete, leaving only the deployment of the remaining premise level equipment and the completion of the VPA. Boulder believes such a narrow focus is misguided.
- 57. Boulder raises concerns regarding the MetaVu report as well. Specifically, it is concerned whether Public Service actually tested any of the value propositions in SGC and

whether there was a direct link between the VPA and SGC. For example, Boulder points to value proposition VP 1.2 "Capital deferment through pricing" which posits that by implementing certain pricing schemes, the utility can create an incentive for customers to reduce demand during peak periods, which, if significant and reliable, could defer or delay additional capital for increased capacity. Boulder notes that although this value proposition is being tested in the current SGC pricing pilot, the only study referenced under the "Lessons Learned" section was to a previous 2006-07 dynamic pricing pilot program. Boulder contends that there appears to be nothing referencing lessons learned from the current SGC pricing pilot, which may be attributed to the fact that the current pricing pilot will not be completed until late summer in 2013. Further, there is no indication from Public Service that it will update this analysis based on the information learned in the current SGC pricing pilot. Of higher concern for Boulder is that there is no evidence in the record to indicate that Public Service is using or will use the VPA for a purpose other than as a basis to seek cost recovery here.

- Public Service did form the group, its mere formation did not meet the Commission's test for additional SGC cost recovery. Rather, Boulder asserts that the Commission suggested such an advisory group in order to assist Public Service in developing a robust strategic plan for SGC and in identifying a suite of future applications.<sup>33</sup> Boulder points out that the Advisory Council had only met at least one time prior to the filing of the Application and has provided no information relative to a strategic plan or to future applications of SGC.
- 59. Boulder takes issue with Public Service's claim, in part, for additional cost recovery based on the fact that the Company has three ongoing pilot projects. Boulder argues

<sup>&</sup>lt;sup>33</sup> Decision No. C11-0139, p.6 at ¶22.

that all three of those projects were already in place in February 2011 when the Commission issued Decision No. C11-0139. For instance, the decision approving the SGC pricing pilot in Docket No. 09A-706E was effective May 19, 2010, shortly after Public Service's CPCN application was filed on March 10, 2010. Boulder also argues that the Commission already determined in Decision No. C11-0139 that evidence presented in Docket No. 10A-124E was insufficient to recover SGC investment beyond \$27.9 million, as that was the capital cost of the project in March 2009. The modified scope of the project at that time included the SGC pricing pilot and the value proposition report to the Commission. (Decision No. C11-0139, p.6 at ¶21)

- 60. The second pilot project offered by Public Service in support of additional cost recovery is the IHSD pilot, which was also in place before Decision No. C11-0139 was issued. Boulder notes that this pilot project has suffered several unfortunate and unforeseen difficulties. Initially, Public Service was to analyze a total of 2,250 IHSD households, 1,850 of which were to be installed within SGC, of which 1,264 would be in the premises of customers participating in the SGC pricing pilot program. The remaining 400 devices were to be installed outside of SGC.
- 61. With the modifications to the program, there are now 101 homes within SGC with IHSDs, 66 of which are in homes participating in the pricing pilot. Public Service expects to install up to 1,149 IHSD systems in 2012, but with a focus on the Denver metropolitan area rather than on SGC. Boulder further notes that none of the installed IHSD systems rely on the installed smart grid infrastructure.
- 62. The third pilot project identified by Public Service in support of cost recovery is the plug-in electric vehicle study with the University of Colorado, Toyota, and the National Renewable Energy Laboratory. Boulder again notes that this pilot project was launched in

October 2010, well before Decision No. C11-0139 was issued. The project concluded in March 2012.<sup>34</sup>

- 63. Boulder argues that the three pilot projects offered by Public Service as a basis, in part, for additional SGC cost recovery were already in place when Decision No. C11-0139 was issued and none of them impressed the Commission sufficiently to grant the full amount of cost recovery. Boulder concludes that Public Service has offered nothing additional regarding those pricing pilots to find that the additional cost recovery should be granted.
- 64. In addition, Boulder argues that Public Service should have developed and presented a true strategic plan here that outlines its vision for SGC and provides detail regarding how the promise of smart grid will be realized, especially as it relates to customer-facing applications. Boulder sets out its own framework for what that plan should have included, such as: a) a future vision for SGC; b) a list of potential pilots consistent with SGC; c) a schedule for the introduction of new pilots and a process for receiving input on them; d) regular updates of the value propositions as new information is derived from SGC; e) development and testing of new value propositions; f) a process for updating the current value propositions as new information is learned; g) a cost/benefit analysis to be used for new pilots, as well as a standard to determine which pilots should be implemented elsewhere; and, h) periodic reporting on how pilot and other smart grid projects and SGC infrastructure are helping to meet adopted visions and objectives for SGC. Boulder expresses disappointment that Public Service failed to provide any information regarding its plans for SGC in the future.
- 65. Boulder concludes that Public Service failed to provide sufficient information as directed by the Commission showing that SGC was slated to achieve enough of its potential to

<sup>&</sup>lt;sup>34</sup> Hearing Exhibit No. 4, Public Service witness, Mr. Adelman direct testimony, p. 12.

justify higher-than-anticipated costs. Boulder argues that simply stating that the Company plans to use SGC as a test bed for future pilots without additional information regarding future plans for the use of the \$44.5 million in SGC infrastructure fails to meet the standard set out by the Commission. There is no indication that Public Service has "rebooted" SGC as required by the Commission, nor has it restored the promise the concept originally held. Additionally, there was a significant lack of information regarding customer-facing benefits. As a result, Boulder concludes that the Application for cost recovery should be denied.

## 3. Climax and CF&I's Position

- 66. As with Boulder, Climax/CF&I identify the parameters they contend were established both by Decision No. C11-0139 and by Interim Order No. R12-0233-I in order for Public Service to be granted full recovery of its SGC investment costs. According to Climax/CF&I, under the Commission's expressly stated burden of proof, Public Service failed to provide the required information.
- 67. For instance, Climax/CF&I argue that Public Service mistakenly takes the position that SGC was complete except for the VPA and the formation of the Advisory Council, such that all that was necessary for full cost recovery was the submission of the MetaVu report in this docket and the formation of the Advisory Council.<sup>35</sup> However, Climax/CF&I also argue that even if Public Service was correct regarding the requirements of this proceeding, cost recovery should nonetheless be denied because the MetaVu report is seriously flawed. Under the Commission's expressly stated burden of proof, Public Service failed to provide the remaining required information.

<sup>&</sup>lt;sup>35</sup> See, Transcript Vol.1, p.14, l. 20 through p.15, l. 9 and Hearing Exhibit No. 20.

on the MetaVu report. In their estimation, the MetaVu report contains serious flaws and as a result is inherently unreliable and analytically unsound. They maintain that evaluation of the value propositions was the bulk of the final phase of Public Service's project, and as a result, the MetaVu report was offered as the centerpiece of the Company's case. However, Climax/CF&I point out that the plain language contained in the report's disclaimer indicates that it should not be used for "decision support." Climax/CF&I assert that scrutiny of the report confirms the disclaimer because the report, taken at face value, and as described in testimony at hearing, demonstrates that it is unreliable and poorly conceived and is merely an after-the-fact rationalization for cost recovery.

- 69. In deconstructing the MetaVu report, several issues are indicated by Climax/CF&I which should result in rejection of the report and denial of cost recovery. Primarily, Climax/CF&I argue that the report is hearsay and was prepared only with cost recovery in mind. As noted *supra*, Public Service concedes that the MetaVu report was not independently prepared. Climax/CF&I argue that offering hearsay evidence deprives the Commission of having access to the author's intentions and an understanding of the process before it. Further, Climax/CF&I state that the report is not only hearsay, but is hearsay within hearsay since much of its conclusions and lessons learned are derived from other reports, which further erodes the credibility of the report.
- 70. Because the MetaVu report was prepared with cost recovery in mind<sup>37</sup> and with the help of Public Service, Climax/CF&I take the position that it cannot be viewed as an

<sup>&</sup>lt;sup>36</sup> See, Hearing Exhibit No. 1 at Exhibit MGL-1, p.ii.

<sup>&</sup>lt;sup>37</sup> Hearing Exhibit No. 19, OCC Witness Mr. Shafer Answer testimony at Exhibit FCS-37, MetaVu planning documents which CF&I/Climax purport to show that MetaVu knew this docket was about cost recovery and that Public Service's primary goal with regard to the docket was to recover its costs.

unbiased review of SGC and is therefore not a reliable evaluation of the project. Climax/CF&I contend that in fact, MetaVu expected that Public Service's request for cost recovery would be approved.<sup>38</sup>

- 71. Climax/CF&I maintain that an example of bias can be found in the narrative of the report. They indicate that the narrative contains no discussion of Public Service's failure to provide a sufficient level of IHSDs and customer facing benefits, despite the fact that it was an obvious shortcoming of SGC and an issue of concern specifically raised by the Commission in Decision No. C11-0139. In addition, Public Service eliminated a comment in the preface of the MetaVu report which stated that SGC provided customer facing technologies.<sup>39</sup> Further, Climax/CF&I note a weakened disclaimer, in which language was eliminated indicating that the report was not guaranteed to be accurate.<sup>40</sup>
- 72. Climax/CF&I also maintain that the MetaVu report is suspect since it was not independently prepared. Climax/CF&I point to several representations made by Public Service regarding the independence of the report, which Climax/CF&I characterize as ringing hollow.<sup>41</sup> For example, Climax/CF&I refer to Hearing Exhibit No. 41 to demonstrate that Public Service management determined that the summary of the report should be submitted rather than a lengthier 600 page report (the table of contents is in the record as Hearing Exhibit No. 33) which Public Service believed would expose SGC to unwanted criticism. Additionally, Climax/CF&I contend that the record shows that Public Service did much more than merely review and comment on the MetaVu report. Rather, officials at all levels of the Company edited the report

<sup>&</sup>lt;sup>38</sup> *Id.* at FCS-37, p.4 of 15.

<sup>&</sup>lt;sup>39</sup> Hearing Exhibit No. 32, p.iii, comment DJJ-1. CF&I/Climax point out that the phrase is missing from the final report contained in Hearing Exhibit No. 1, MGL-1.

<sup>&</sup>lt;sup>40</sup> Hearing Exhibit No. 31, p.vii (CF&I/Climax maintain there is a weakened disclaimer in MGL-1).

<sup>&</sup>lt;sup>41</sup> CF&I and Climax Closing Statement of Position, referring to Hearing Exhibit No. 11, Public Service witness Mr. Lamb rebuttal testimony, p.22, ll. 16-17 and l. 22 to p. 23 l.1.

and at least, suggested substantive changes.<sup>42</sup> Climax/CF&I maintain that Public Service focused the report away from customer facing benefits and made other significant changes.<sup>43</sup> Climax/CF&I conclude that Public Service's inaccurate portrayal of the MetaVu report as independently prepared and its later attempts to recast it as something other than it was, demonstrates the weakness of the report and its unreliability.

- 73. The evidence of record, according to Climax/CF&I, shows that Public Service itself viewed the report as unreliable. Hearing Exhibit No. 32 at p. iii, contains comments on a draft of the report where the Company indicates that "most of the conclusions/claims/observations that are in this report are made with little or no justification." *Id.* Climax/CF&I compare the draft report contained in Hearing Exhibit No. 32 where Public Service's comments are contained, and the final report submitted by the Company as Exhibit MGL-1 in Hearing Exhibit No. 1 and find no additional support for the conclusions incorporated into the report even though Public Service was aware of its deficiencies.
- 74. Climax/CF&I maintain that the report is technically flawed and the evaluation of the value propositions associated with SGC is filled with analytical and logical errors. For example, Climax/CF&I point out that many of the hypotheses contained in the report are merely statements rather than hypotheses that can be tested. As an example, Climax/CF&I point to Value Proposition 4.5 at p. 89 of 128 in Exhibit MGL-1 which states: "During outage conditions, dispatchers will find a way to restore power as quickly as possible. This sometimes means overloading circuits temporarily or making other sub-optimal configuration decisions." Climax/CF&I can ascertain no hypothesis or theory to be evaluated or tested and note that the

 $<sup>^{42}</sup>$  See, testimony of Company witness Mr. Lamb, Tr. Vol. I. p. 174, 1.4 to p. 175, 1.18, and Hearing Exhibit No. 30. p.4.

<sup>&</sup>lt;sup>43</sup> *See*, Comments of Public Service witness Mr. James on Hearing Exhibit No. 32; and comments of Public Service attorney Mr. Dudley on Hearing Exhibit No. 31, p.2.

majority of the value propositions are equally difficult to interpret as hypotheses. Additionally, it is difficult to connect most conclusions to their hypotheses and with many of the value propositions, no action was taken, or the action is not yet complete.

- 75. Climax/CF&I are also critical of the conclusions and lessons learned described in the MetaVu report. CF&I/Climax argue that the conclusions consist of little more than the application of knowledge already understood, or common sense statements. According to Climax/CF&I, almost none of the report relies on data generated from SGC. Climax/CF&I cite among other examples, testimony from Company witness Ms. Wozniak that the conclusions to Value Proposition 6.2 are based on external research.<sup>44</sup>
- 76. In addition to their arguments concerning the flaws of the MetaVu report, CF&I/Climax argue that Public Service failed to provide a coherent plan for the future of SGC in this docket. Climax/CF&I contend that there are no plans for the future whether that be additional pilots, new technologies to be tested, or upgrades to technologies already installed anywhere in the Company's testimony. Although Company witnesses Mr. Lamb and Ms. Hyde testified that Public Service planned to use SGC as a testing platform to test the suite of emerging technologies, <sup>45</sup> Climax/CF&I note that the Company made this same assertion in Docket No. 10A-124E. <sup>46</sup>
- 77. Because Public Service failed to install IHSDs as originally planned, Climax/CF&I also maintain that the Company failed to evaluate or provide customer facing benefits with SGC. Originally, SGC was to provide a comprehensive integrated two-way communication and distribution system from the generation facility to customer premises in one

<sup>&</sup>lt;sup>44</sup> Tr. Vol. II, p.141, 1.25 to p. 142, 1.3.

 $<sup>^{45}</sup>$  Lamb testimony - Tr. Vol. I, p.134, ll.8-12, and Hyde testimony - Tr. Vol. I, p.49, l.14 to p.50, l.4.

<sup>&</sup>lt;sup>46</sup> Citing, direct testimony of Mary Fisher, Docket No. 10A-124E, p.4, ll.14-17.

geographic area (Boulder).<sup>47</sup> Because Public Service failed to install the IHSDs as originally envisioned, Climax/CF&I argue that the ability to provide customer-facing benefits was eliminated. Given the limited number of IHSDs installed (approximately 101 in Boulder),<sup>48</sup> Climax/CF&I do not believe it is possible for the Company to provide information on the ability of customers to make practical use of SGC on their side of the meter.

- 78. While IHSDs were a part of the original SGC platform, Climax/CF&I assert that Public Service has abandoned that intent. Rather, Public Service now plans to install additional IHSDs outside SGC.<sup>49</sup> Climax/CF&I argue that the Company's decision to segregate its examination of IHSDs from SGC subverts one of the main intentions of SGC, to provide customer facing benefits within SGC and to determine how the ability to manage customer loads would impact the grid within SGC.
- 79. Finally, CF&I and Climax maintain that Public Service's claims of utility facing benefits derived from SGC should be discounted because the Company admits that what it has learned regarding its distribution system from SGC has actually been part of most utilities' strategic plans for years. Therefore, Public Service knew, or should have known from an analysis of its system that it would be able to achieve certain distribution benefits from the technologies used in SGC. Climax/CF&I point to Company witness Mr. Lamb's testimony that the SGC "technologies enable a more self-healing grid and have been part of most utilities' strategic plans for years." CF&I/Climax question how much the distribution benefits

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<sup>&</sup>lt;sup>47</sup> Citing, direct testimony of Randy Houston, Docket No. 10A-124E, p.9, 115-7.

<sup>&</sup>lt;sup>48</sup> Hearing Exhibit No. 19, OCC witness Mr. Shafer answer testimony, p.19, 11.24-25.

<sup>&</sup>lt;sup>49</sup> *Id.* at p.29,11.9-14.

<sup>&</sup>lt;sup>50</sup> Hearing Exhibit No. 1, Company witness Mr. Lamb direct testimony, p.29, 11,8-9.

<sup>&</sup>lt;sup>51</sup> *Id*.

Public Service claims actually came from SGC and how much was already known or should have been known.

80. In summary, Climax/CF&I conclude that Public Service has failed to complete SGC, that SGC is not cost-effective, and the MetaVu report is seriously flawed and thus should not be relied upon to demonstrate the value associated with SGC. Therefore, Climax/CF&I request that Public Service be denied recovery of the balance of its SGC investment.

### 4. OCC's Position.

- 81. The OCC argues that Public Service failed to deliver on the original promise of SGC due to the fact that it failed to test emerging customer-facing technologies. Public Service initially touted SGC to media outlets and the public as enabling or testing potential customer benefits such as green pricing signals, fully automated home energy usage, integration with smart appliances and IHSDs, vehicle to grid technology, and direct communication with smart meters. However, the OCC criticizes Public Service for now characterizing SGC as nothing more than a testing platform to evaluate technologies.
- 82. The OCC also criticizes the Company for failing to follow through with its initial marketing claims that customers would be able to make use of smart appliances to better automate home energy use. The OCC argues that Public Service never tested any smart appliances by using the General Electric Brillion product line, as an example. Although Public Service took the position that it should not be faulted for not testing connectivity and communications requirements for appliances that could not be purchased in Colorado, 54 the OCC points out that Public Service did not conduct market research at the time it

<sup>&</sup>lt;sup>52</sup> Hearing Exhibit No. 19, pp.13-26.

<sup>&</sup>lt;sup>53</sup> Hearing Exhibit No. 11, p.9, ll.6-7.

<sup>&</sup>lt;sup>54</sup> Hearing Exhibit No. 13, Public Service witness Mr. Huston rebuttal testimony, p. 21, 1.23 to p.22, 1.2.

was planning and building SGC, rather it only did so in response to criticism by OCC witness Mr. Shafer in his answer testimony. Further, nothing in the record indicates that Public Service acquired or tested smart appliances or attempted to test smart appliances manufactured by companies other than General Electric.

- 83. While Public Service initially made claims that SGC could enable real-time pricing, the OCC notes that there is nothing in the record to indicate that the Company can or will provide real-time prices to customers. The OCC maintains that it appears that Public Service has simply given up on testing the customer-facing emerging technologies in SGC. Despite Public Service's claims that the value of SGC is as a testing platform, the OCC points out that many of the customer-facing technologies Public Service highlighted at the initial stages of SGC have not been realized or even tested.
- 84. The OCC also posits that the lack of customer benefits from SGC is due to the fact that it does not interconnect with most IHSDs or home energy management systems. Although Public Service initially touted SGC's interoperability which would allow for plug-in pieces and applications and experiments,<sup>55</sup> the OCC responds that SGC currently does not have "plug-and-play" functionality for in-home appliances or IHSDs. In fact, the OCC remarks that the IHSD Public Service is currently utilizing for the IHSD pilot bypasses the SGC infrastructure completely.<sup>56</sup>
- 85. Because the Commission explicitly listed interconnectability as a primary issue to resolve for cost recovery in Decision No. C11-0139, the OCC argues that Public Service failed to

<sup>&</sup>lt;sup>55</sup> Hearing Exhibit No. 22, p.10.

<sup>&</sup>lt;sup>56</sup> Hearing Exhibit No. 19, OCC witness Mr. Shafer answer testimony, p.30, l.7 to p.31, l.5; Hearing Exhibit No. 11, Public Service witness Mr. Lamb rebuttal testimony, p.19, ll.20-22; and Hearing Exhibit No. 13, Public Service witness Mr. Huston rebuttal testimony, p.16, ll.9-22.

meet its burden here to demonstrate interconnectability between SGC infrastructure and at least some IHSDs.

- 86. The OCC also made much of the fact that Public Service did not utilize smart meters that were Zigbee<sup>TM</sup> enabled in order to enhance interconnection, which is described as having a smart meter communicate through a standard data communications pathway.<sup>57</sup> Smart meters, similar to those utilized in SGC which are not Zigbee<sup>TM</sup> enabled, only communicate with Public Service via the internet. There is no ability to send signals or information to a customer's IHSD. On the other hand, a smart meter that is Zigbee<sup>TM</sup> enabled can communicate with the utility and can also send information to a customer's IHSD, as well as enable a third party energy management vendor to coordinate with a customer and allow even more customer-facing benefits.<sup>58</sup> Public Service's current EnergyHub system allows the Company to notify customers of pricing events and to adjust a customer's thermostat over the internet rather than through SGC; however, this control functionality will be terminated at the conclusion of the IHSD pilot when the utility portal through which the Company adjusts a customer's thermostat and issues pricing events will be terminated.<sup>59</sup>
- 87. In the OCC's estimation, SGC has not been properly utilized as a test bed, even for the customer-facing technologies that Public Service has attempted to test. Although Public Service claims that it knows more and learns more every day as a result of ongoing pilots enabled by SGC infrastructure, such as what customers want and what they are interested in regarding in-home device control, the OCC contends that SGC does not actually

<sup>&</sup>lt;sup>57</sup> Hearing Exhibit No. 18, OCC witness Mr. Gonzalez answer testimony, p.22, 1.18 through p.23, 1.5.

<sup>&</sup>lt;sup>58</sup> *Id.* at Exhibit WG-26.

<sup>&</sup>lt;sup>59</sup> Hearing Exhibit No. 35.

enable the IHSD pilot and that the results from each of the SGC pilots likely will have limited value.

- 88. The EnergyHub system Public Service chose for the IHSD Pilot does not integrate or rely upon the SGC infrastructure to operate, according to the OCC.<sup>60</sup> Rather than receiving whole home energy usage data from the smart meters, the EnergyHub HomeBase unit receives electricity consumption data from a sensor installed on a customer's electric panel. According to the OCC, this means that the SGC infrastructure is not necessary for Public Service to test the EnergyHub IHSDs. In addition, the Company is testing the same EnergyHub systems outside of SGC.<sup>61</sup> As a result, the OCC questions Public Service's claims that the value of the SGC project lies in its ability to enable the testing of IHSDs.
- 89. The OCC also notes that Public Service planned to deploy 1,264 IHSD systems in SGC in order to achieve statistical validity with a 90 percent confidence interval and 20 percent relative precision in the IHSD pilot results. However, to date, Public Service has only installed 101 EnergyHub systems in SGC and of those, only 66 are installed in homes also participating in the SGC Pricing Pilot. Due to those deployment levels, the OCC argues that Public Service will be unable to obtain statistically significant results regarding the testing of advanced demand response scenarios within SGC.
- 90. Public Service cites several reasons for the lack of deployment of IHSD systems, the primary reason being that Boulder grounding and permitting issues prevented more than half

<sup>&</sup>lt;sup>60</sup> Hearing Exhibit No. 11, Lamb rebuttal testimony, p.19, 1.6 through p.20, 1.2; and Hearing Exhibit No. 13, Huston rebuttal testimony, p.16, 1l.9-22.

 $<sup>^{61}</sup>$  Hearing Exhibit No. 19, OCC witness Mr. Shafer answer testimony, Exhibit FCS-18 – May 3, 2012 *Your Hub* article).

<sup>&</sup>lt;sup>62</sup> Id. at p.28, ll.17-21, and Exhibit FCS-17 (2011 Annual Pricing Pilot Status Report)

of the IHSDs originally requested from being installed.<sup>63</sup> The OCC asserts that these issues could have been discovered and resolved prior to rolling out the EnergyHub system. Notably, Company witness Ms. Wozniak testified that Public Service did not investigate the Boulder municipal code requirements prior to selecting the EnergyHub system.<sup>64</sup>

- 91. The OCC faults the Company for taking the position that to re-boot the SGC project, Public Service needed only to establish and utilize the Advisory Council and to complete the VPA.<sup>65</sup> Even if that was all that was required of Public Service, the OCC views the Company's evidence addressing those issues as largely incomplete, unreliable, or unconvincing.
- 92. The OCC also has many of the same criticisms of the MetaVu report as Climax/CF&I, finding the report to be neither independent nor unbiased and unreliable hearsay evidence. For example, the OCC notes that the report does not rely on findings from SGC to reach many of its conclusions on the 68 value propositions, but rather many of the conclusions are based on studies that occurred prior to SGC or on outside reports. As with Climax/CF&I, the OCC also argues that the MetaVu report was not independently produced, but was edited by Public Service. Due to the collaborative nature of the MetaVu report, the OCC urges little weight should be given to it, nor should it be relied upon as an independent assessment of the value propositions. Consistent with Climax/CF&I's arguments, the OCC contends that the report was paid for by Public Service merely to support its request for cost recovery in this proceeding.
- 93. The OCC is also critical of the makeup of the Advisory Council. It notes that, while the council is represented to be composed of academics, researchers, industry experts, and

<sup>&</sup>lt;sup>63</sup> Tr. Vol. II, p.153, ll.2-11; Hearing Exhibit No. 5, Public Service witness Ms. Wozniak direct testimony, p.17, ll.12-19.

<sup>&</sup>lt;sup>64</sup> Tr. Vol. II, p.155, ll.14-21.

<sup>&</sup>lt;sup>65</sup> Hearing Exhibit No. 20.

residential and commercial customers, absent are members of the regulatory community, Boulder, third-party energy management companies, or any consumer groups. Further, while the Company listed some of the general observations made by the Advisory Council at its last meeting, the OCC finds lacking any evidence of ways in which it is shaping new ideas, pilots, or tests to be implemented in SGC. There is no evidence the Advisory Council has assisted in re-booting SGC, according to the OCC.

- 94. The OCC concludes that SGC has a history of mismanagement which has resulted in higher than anticipated costs and, as a result, the Company's Application for cost recovery here should be denied. As examples of mismanagement, the OCC refers to an interview by former CEO Richard Kelly in which he states that his biggest mistake as head of Xcel Energy (Xcel) was "not asking customers in Boulder if they wanted the SmartGrid. We never asked the customers what they really wanted, and do they really want all this information?" 66
- 95. Of crucial importance, the OCC points to the fact that Public Service failed to conduct a cost-benefit analysis before undertaking the SGC project. Company witness Lamb stated in testimony that it was not worthwhile to require a typical cost-benefit analysis for either a demonstration or pilot project due to the uncertainty regarding the ultimate cost effectiveness or feasibility of what is being considered.<sup>67</sup> The OCC counters that an initial cost-benefit analysis is crucial to justify investing in a demonstration project and to answer questions such as why the project should be done in the first place; what value or opportunity would be expected; and, how that value or opportunity is compared to the expected cost of the project.

<sup>&</sup>lt;sup>66</sup> Hearing Exhibit No. 25 – article from *The Denver Business Journal*.

<sup>&</sup>lt;sup>67</sup> Hearing Exhibit No. 7, Lamb supplemental direct testimony, 10, 117 to p.11, 1.15.

The OCC posits that many of the ills suffered by SGC could have been avoided by conducting a cost-benefit analysis.

- 96. Also of concern to the OCC is the lack of consistent leadership through SGC's development. The OCC observes that six previous managers of the SGC project have left the Company, including the original architect of the project (former Xcel vice president Mr. Ray Gogel). The OCC cites this lack of leadership as contributing to the issues associated with SGC.
- 97. Finally, as an indication of project mismanagement and lack of leadership, the OCC refers to Decision No. C11-0575 in Docket No. 10A-124E issued May 27, 2011, in which Public Service was required to survey all of its SGC partners in the first quarter of 2012, 2013, and 2014 to determine if they had obtained or had plans to obtain patent protection on any technology developed from the SGC project that Public Service's affiliates could utilize. Additionally, Public Service was to report to the OCC by the same deadlines, the results of its survey and any use of technology developed during the project by affiliates. The OCC states that Public Service has failed to file such reports as required for 2012. The initial report should have been submitted by the end of March 2012. The OCC cites this as further evidence of project mismanagement.
- 98. For all the reasons stated above, the OCC recommends that Public Service's Application be denied with prejudice.

### 5. Ms. Glustrom's Position

99. Ms. Glustrom generally adopts the positions of the other Intervenors in this proceeding. She argues that nothing in the voluminous testimony and exhibits Public Service submitted in this proceeding has met the requirements the Commission established in

Decision No. C11-0139. As a result, Ms. Glustrom recommends that Public Service's Application be denied.

## C. Analysis and Conclusions

# 1. Scope of Proceeding and Burden of Proof

100. Except as otherwise provided by statute, the Administrative Procedure Act imposes the burden of proof in administrative adjudicatory proceedings upon "the proponent of an order." § 24-4-105(7), C.R.S. As provided in Commission Rule 4 *Code of Colorado Regulations* (CCR) 723-1-1500 of the Rules of Practice and Procedure, "[t]he proponent of the order is that party commencing a proceeding." Public Service is the proponent since it commenced the proceeding through the filing of its Application. Public Service bears the burden of proof by a preponderance of the evidence. *See*, § 13-25-127(1), C.R.S.; 4 CCR 723-1-1500. The preponderance standard requires the finder of fact to determine whether the existence of a contested fact is more probable than its non-existence. *Swain v. Colorado Dept. of Revenue*, 717 P.2d 507 (Colo. App.1985). While the quantum of evidence that constitutes a preponderance cannot be reduced to a simple formula, a party has met this burden of proof when the evidence, on the whole and however slightly, tips in favor of that party.

101. The determination of the burden of proof Public Service is required to meet in this proceeding was outlined in two separate orders. Primarily, the scope of this proceeding, as well as what the Commission intended Public Service to show was expressly delineated in Decision No. C11-0139. As indicated *supra*, the Commission (in denying full recovery of the \$44.5 million in costs for SGC as sought by Public Service) determined that for it to consider whether to allow Public Service to recover the remaining balance of SGC investment, the

Company must demonstrate in a future application, *inter alia*, "that the SGC project has a coherent and valuable future." <sup>68</sup>

- 102. The Commission also expressed its concern as to whether SGC could "achieve enough of its potential to justify its higher-than-anticipated costs." That concern extended to whether SGC would become integral to the Company's distribution system going forward. The Commission viewed the project as still being in the developmental stage at the time it issued Decision No. C11-0139 in February 2011. Not only was the Commission concerned that Public Service had failed to fully evaluate SGC's capabilities, but also that the Company had failed to provide assurances that those capabilities would likely be realized. In fact, the Commission was generally troubled with the overall lack of detail regarding the planned use of the project going forward and sought additional information.
- articulated specific criteria the Company was to satisfy. Public Service must "articulate and defend a strategic plan for the use of SGC investment," because the Commission believed it was important to the project to achieve benefits in a cost-effective manner. Given the large cost overruns to date, the Commission further required that Public Service demonstrate the "credible promise of consumer and utility benefits sufficient to justify the cost overruns." Additionally, the Commission required specific information regarding "the ability of customers to make practical use of SGC on their side of the meter through in-home devices."

<sup>&</sup>lt;sup>68</sup> Decision No. C11-0139 at p.7, ¶23.

<sup>&</sup>lt;sup>69</sup> *Id*. at ¶17.

<sup>&</sup>lt;sup>70</sup> *Id*.

<sup>&</sup>lt;sup>71</sup> *Id*. at¶19.

<sup>&</sup>lt;sup>72</sup> *Id*.

<sup>&</sup>lt;sup>73</sup> *Id*.

<sup>&</sup>lt;sup>74</sup> *Id*.

The Commission also required information regarding the "interconnect ability of SGC with those customer devices."<sup>75</sup>

- 104. The Commission further instructed Public Service to develop an advisory group "[t]o assist in developing a robust strategic plan for SGC and in identifying a suite of future applications ..." Once all of these tasks were completed, the Commission indicated that it would then consider whether to allow Public Service to recover the balance of costs for SGC which were disallowed in Docket No. 10A-124E. 77
- 105. Because the evidence of record in Docket No. 10A-124E regarding the future of SGC, in the words of the Commission, was "sparse," it capped recovery of SGC investment at \$27.9 million "unless and until the Company demonstrates to [the Commission's] satisfaction that it has completed the unfinished aspects of the SGC project." In addition to the above mentioned prerequisites, the Commission also instructed Public Service, at a minimum, to provide information as to how advisory groups are being engaged, to identify smart grid investments, and to show how such investments (or the knowledge gained) will benefit customers and grid operations.<sup>79</sup>
- 106. In addition to those prerequisites to cost recovery established by the Commission in Decision No. C11-0139, Hearing Commissioner Baker set out his own list of criteria in Decision No. R12-0233-I and required Public Service to address the following:
  - Whether the benefits associated with SGC have been achieved in a cost-effective manner.

<sup>&</sup>lt;sup>75</sup> *Id*.

<sup>&</sup>lt;sup>76</sup> *Id.* at ¶22.

<sup>&</sup>lt;sup>77</sup> *Id*. at ¶23.

 $<sup>^{78}</sup>$  *Id.* at ¶¶20 and 21.

<sup>&</sup>lt;sup>79</sup> *Id.* at fn. 3,  $\P 23$ .

• What constitutes "completeness" in the context of a pilot or demonstration project such as SGC.

- How the Commission should relate a typical cost/benefit analysis to a project that is a pilot project.
- What sufficiently constitutes the realization of the capabilities of the SGC project given the relatively unique circumstances of applying a CPCN to a demonstration project.
- How does the knowledge gained through the dynamic pricing pilot regarding the ability of customers to make practical use of SGC through in-home devices inform the decisions to be made in this docket.
- What are the capabilities of SGC and the Company's plans going forward.
- Who are the members of the Advisory Council and what specific recommendations have they made regarding the management and direction of the project.
- 107. Public Service was therefore required to meet the prerequisites to cost recovery dictated by the Commission in Decision No. C11-0139 and the criteria for additional pertinent information established by Interim Order No. R12-0233-I as set out *supra* under its burden of proof standard.

#### 2. Prudence

- 108. As detailed above, Public Service takes the position that prudence has already been established in Docket No. 10A-124E and is therefore not an issue here. The Company argues that a standard prudence analysis was applied in Docket No. 10A-124E, which is did Public Service act prudently based on the knowledge it had when it made the decision to proceed with and implement the project? Public Service maintains that the Commission affirmed that the entire \$44.5 million in SGC costs was prudently expended.
- 109. According to Public Service, Decision No. C11-0139 must be read as a whole to understand the determination of prudence. The Company maintains that Paragraph No. 21 of Decision No. C11-0139, where the Commission states that it would deem \$27.9 million to be

prudent at this time, must be read with Paragraph No. 36, where the Commission found that "the Recommended Decision provides an adequate explanation of why the \$44.5 million in costs listed in Attachment 1 to the Settlement Agreement are prudent" and that the ALJ provided an adequate basis for the recommendations given. Consequently, it views the issue of prudence as already decided.

- 110. Public Service also points to Hearing Exhibit No. 12, Ms. Hyde's rebuttal testimony, in which she interprets Decision No. C11-0139 as meaning that the Commission merely wanted to create an incentive for Public Service to keep looking forward given the cost overruns of the project. Because the Commission had limited tools to create an incentive for the Company, it withheld recovery of a portion of the investment in SGC in order to get Public Service to complete the value proposition evaluation and to take steps to ensure the Company would derive continuing value from the project.
- 111. It is found that Public Service's argument that the Commission determined the full investment amount of \$44.5 million was deemed prudent in Decision No. C11-0139 is without merit. While the undersigned ALJ agrees with Public Service's assertion that the Decision must be read in its entirety to provide the proper context for the Commission's prudence determination, agreement with the Company ends there. As stated *supra*, the Commission explicitly held in Paragraph No. 21 of Decision No. C11-0139 that it only deemed the level of investment in SGC of \$27.9 million to be prudent. This was due to the paucity of evidence on the record regarding the future of SGC. In arriving at the \$27.9 million amount, the Commission based its decision on the fact that the most tangible portion of the information provided in Docket No. 10A-124E addressed the pricing pilot and the planned report to the Commission regarding the value propositions, which approximated the modified scope of the project when it

was considered in March 2009. At that time, the capital cost of the project was \$27.9 million. Therefore, the Commission found this amount to have been prudently incurred.

- 112. Although Public Service reads Paragraph No. 36 of Decision No. C11-0139 to mean that the Commission adopted the ALJ's finding in Recommended Decision No. R10-0124E that the entire investment of \$44.5 million in SGC is prudent, it appears that the Company reads too much into that paragraph. The context of the Commission's statements in Paragraph No. 36 deals with the exceptions of the OCC to the Recommended Decision. It was the OCC's position in that docket that the ALJ used "20/20 hindsight" to evaluate Public Service's CPCN application because the \$44.5 million represented actual costs instead of pre-construction estimates. Public Service countered that the OCC's argument was flawed in that it focused only on the initial planning stage while excluding the implementation stage of the project. Public Service further pointed out that the Commission, in Decision No. C10-0729 at ¶40 (Docket No. 10A-124E issued July 14, 2010) was clear that the prudence of SGC at both the planning and implementation stages is relevant. 80
- 113. In response to the OCC's arguments, the Commission agreed with Public Service in finding that the Recommended Decision provided an adequate explanation and basis of why the ALJ determined that the \$44.5 million in costs were prudent. In other words, the Commission determined that the ALJ's findings were not based merely on "20/20 hindsight" as asserted by the OCC, but included an analysis of both the planning and implementation stages of the project.
- 114. Notably, the Commission made no determination affirming the ALJ's findings regarding the prudency of the \$44.5 million amount. Indeed, it would be illogical for the

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 $<sup>^{80}</sup>$  *Id.* at ¶¶33-35.

Commission to make such a finding of prudence and then award only a portion of the SGC investment amount and require the Company to file a subsequent application to recover the balance. Additionally, it would have certainly violated regulatory principles and the regulatory compact to deny Public Service full recovery of costs already determined by the Commission to have been prudently incurred. If the Commission merely sought additional information from the Company, it certainly possesses other means to obtain such information that do not depend on withholding prudently incurred costs from present recovery. Therefore, it is found that the Commission deemed no more than \$27.9 million of the SGC investment as prudently expended and recoverable and that the Commission required Public Service to carry the burden of proof in a subsequent application proceeding to prove that the remainder of the investment of approximately \$16.6 million was prudently incurred in order to recover that balance.

#### 3. Application Findings and Conclusions

115. A determination of whether Public Service met its burden of proof in this proceeding will be based on the Commission established criteria set out in Decision Nos. C11-0139 and R12-0233-I.

## a. Articulate and Defend a Strategic Plan for the Use of SGC Investment

116. In addressing this criterion, Public Service understands the Commission to mean that the whole of its presentation needed to "articulate and defend" how it was using and would continue to use the investment in SGC for the benefit of its customers. The Company, while citing several examples of how it presented a strategic plan in this proceeding, nonetheless focuses on how it is using SGC to develop its overall grid modernization efforts and how it is using and will continue to use SGC for current and future pilots.

117. As for how SGC has modernized the Company's grid and provided value to all of its customers, Public Service keys in on the discussion of AMI. It contends that while AMI had been considered to be a key component of a smart grid, Public Service learned that its AMR system is economical and that AMI is not needed to realize many of the contemplated benefits. Public Service cites this as an example of "negative" learning, or determining what technology not to deploy elsewhere on its system. According to Public Service, learning what does not work or what is not necessary can be just as important as learning what does work.

- 118. As discussed *supra*, the Company also refers to how SGC is providing value and information on grid modernization, particularly with what it learned regarding DVO. Where DVO has been deployed, voltage can be managed more effectively and in some instances lowered by monitoring throughout the feeder rather than just the substation, which can result in fuel savings and corresponding carbon reductions.
- 119. Public Service also refers to testing the effects of photovoltaic installations on feeders through two pilots at the SolarTAC facility in Aurora, Colorado. While not a part of SGC, Public Service nonetheless cites these pilots as potentially being coupled with SGC to develop a future approach.
- 120. Along these lines, Public Service maintains that is has provided a "plethora" of information regarding the actual lessons it has learned and the technology ideas it has tested in connection with SGC and how it is applying these lessons and ideas to its grid modernization efforts. It points out that the "negative" lessons learned are invaluable, especially regarding smart meter installation. The Company emphasizes that SGC is a testing platform that is to benefit all customers, not just those in Boulder. Public Service maintains that the process that is presently ongoing is how it always intended to derive value from SGC.

121. As indicated above, the Intervenors generally argue that Public Service has provided no coherent plan for the future of SGC and has made no commitments regarding the future of SGC to allay the Commission's concerns and to assure adequate compliance with Decision No. C11-0139. For instance, the Intervenors maintain that nowhere in Public Service's testimony can be found plans for the future or whether additional pilots and new technologies are to be tested, or whether upgrades will be added to technologies already installed. As Climax/CF&I note, the Company's intention to continue using SGC as a platform to test a suite of emerging technologies<sup>81</sup> is the same intention made by Public Service in Docket No. 10A-124E. 82

- 122. Based on the evidence of record, it is found that Public Service has provided little in the way of a robust strategic plan for the future of SGC as required by the Commission. The Commission required Public Service to "articulate and defend" a strategic plan for the use of SGC investment. It unambiguously made it clear that it wanted the Company to justify recovery of the SGC investment by providing and defending a strategic plan. In fact, one of the key functions of the Advisory Group was to assist the Company in fashioning such a strategic plan.
- 123. A listing of seven bullet points in a Statement of Position does not fulfill the Commission's requirement concerning a strategic plan. The representation of Public Service that its entire case is representative of a strategic plan simply fails to comport with the Commission's criteria. While there is some data provided by Public Service regarding its strategy to utilize SGC as a testing platform for grid modernization and the testing of several pilots, as pointed out by the Intervenors, those pilots were already considered in Docket No. 10A-124E and failed to impress the Commission there. Merely reiterating them here does not constitute a viable

<sup>&</sup>lt;sup>81</sup> Tr. Vol. I., p.134, ll.8-12.

<sup>&</sup>lt;sup>82</sup> Docket No. 10A-124E, direct testimony of Company witness Ms. Fisher, p.4, ll.14-17.

strategic plan. The Company presented no evidence of its engagement with the Advisory Council to develop a strategic plan mapping the future of SGC as was expected. One typically associates a strategic plan as an entity's process of determining the direction it wishes to take and determining resource allocation necessary to embark on that strategy. Public Service failed to provide any such process here.

### b. Demonstrate the Credible Promise of Consumer and Utility Benefits Sufficient to Justify Cost-Overruns

- 124. Public Service asserts that the stated purpose of SGC was to test emerging smart technologies. The Company notes that the success of the customer-facing aspects of SGC were understood to be dependent on customer behavior which was not entirely within its control. Public Service also emphasizes that SGC was not simply about the customer-facing benefits. Rather, it stresses that many of the benefits of SGC as cited previously were not readily apparent to customers, such as DVO and the "negative" lessons learned regarding smart meter installation.
- 125. As discussed *supra*, the Intervenors argue that the original promise of SGC as understood in Docket No. 10A-124E was to provide a comprehensive integrated two-way communication and distribution system from the generation facility to customer premises in one geographic area, which would allow not only the monitoring and control of the utility distribution system, but also the monitoring and control of customer energy usage. However, because Public Service failed to install sufficient IHSDs as part of the SGC platform as originally envisioned, SGC's ability to provide customer-facing benefits was largely eliminated. The Intervenors further maintain that, since the Company has only installed approximately 100 of the IHSDs (of which only 66 are in homes participating in the SGC pricing pilot), Public Service cannot provide further information on the ability of customers to make

<sup>&</sup>lt;sup>83</sup> Docket No. 10A-124E, direct testimony of Company witness Mr. Houston, p. 9, 115-7.

practical use of SGC on their side of the meter. The Intervenors conclude that evidence of pilots transferred outside of SGC based on lessons learned in SGC is not evidence of rebooting the project.

- 126. The OCC provides evidence that SGC is not interoperable or able to interconnect with most IHSDs; that SGC has not been properly utilized as a test bed for customer-facing technologies; that the Pricing Pilot suffered from a lack of participation and as a result has not provided sufficient data; and that testing the effects of providing near real-time data to customers has been hampered by Public Service's limited web analytic capabilities.
- 127. It is evident that the Commission wanted Public Service to articulate not only utility benefits, but customer-facing benefits as well in order to justify the cost overruns associated with its SGC investment. The Commission wanted to see information that showed customers had the ability to make practical use of SGC through in-home devices.
- 128. In this proceeding, however, Public Service has concentrated on providing details of the benefits obtained from SGC on the utility-side. While it maintains that there are many customer benefits as well, those arguments have been limited and at times ambiguous. The dearth of information regarding customers-facing benefits is readily apparent.
- 129. It is also evident that the installation of IHSDs was not the success originally anticipated. The limited number of installed IHSDs in SGC is not sufficient to provide relevant data in order to define benefits from the customer-side of the meter. By the Company's own admission, there were significant problems associated with the installation of IHSDs and obtaining useful information from the Company's dedicated website. The OCC provided compelling evidence of the inability of the web portal to provide granular energy usage information such as daily, hourly, and 15-minute interval energy usage.

130. While the Company defends the IHSD experience by stating that it is a good example of how the Company has learned from the SGC "to go in a different direction," the ALJ finds that statement disconcerting in that the initial promise of the interconnectability of IHSDs and SGC appears to have been abandoned by the Company. It is also of concern that an integral part of SGC, the installation of IHSDs, is now being shifted to other parts of the Company's infrastructure and away from SGC.

131. Further, the Company's position of "negative" learning experiences associated with the IHSDs and interconnectability issues fails to meet the Commission's expectations regarding the interconnectability of SGC and IHSDs in the context of "the credible promise of consumer and utility benefits sufficient to justify cost overruns." The Commission wanted to know more about the ability of customers to make practical use of SGC on their side of the meter through IHSDs and that information was not forthcoming. Public Service provided significantly more information regarding the utility benefits achieved from SGC. However, that evidence and testimony did not rise to the level that it explained or justified the cost overruns of SGC as expected by the Commission. The lack of information provided here regarding customer-facing benefits or justification of the cost overruns fails to meet the Company's burden of proof.

# c. Show that the Unfinished Aspects of SGC Have Been Completed

132. Public Service takes the position that the two unfinished aspects of SGC from Docket No. 10A-124E have now been completed: the formation of the Advisory Council to assist it with the future of SGC and the filing of the completed MetaVu report and its 68 value propositions.

#### (1) Advisory Council

- 133. While Public Service did form an Advisory Council, little is provided in the record regarding how the council has assisted the Company with a strategic plan or identifying a suite of future applications for SGC. In its Statement of Position, Public Service seems to commit to engaging the Advisory Council, at some point, to help it select one new pilot program. It also commits to expanding the composition of the Advisory Council to include representatives from Boulder, the OCC, Staff, and the Colorado Energy Office.
- 134. While this commitment is wholeheartedly endorsed, it is nonetheless noted that such commitments were expected by the Commission as part of the Company's criteria for SGC cost recovery. There is nothing on the record to indicate that the Advisory Council was engaged by Public Service, as required by the Commission, to assist in developing a strategic plan to set SGC back on the track of viability by devising a robust strategic plan or to identify a suite of future applications for SGC. There is simply no evidence the Advisory Council has assisted in re-booting SGC.

#### (2) MetaVu Report

- 135. The MetaVu report and its 68 value propositions and conclusions have been held up by Public Service as an example of how it met the Commission's criteria for cost recovery. However, significant problems exist with the MetaVu report. Its independence cannot be accurately verified given Public Service's admission that it contributed significantly to the report through review and editing. Its characterization by CF&I/Climax as nothing more than hearsay within hearsay is convincing. It is noteworthy that no one from MetaVu was offered as a witness to defend the report, even though it was the firm responsible for its content and conclusions.
- 136. Regarding the VPA, noteworthy evidence was provided by the Intervenors regarding the lack of usefulness of the hypotheses presented and the conclusions.

It is agreed that many of the statements characterized as hypotheses were merely statements regarding various systems. A hypothesis is typically identified as a proposed theory or explanation for a phenomenon which can be tested. As pointed out by the Intervenors, many of the supposed hypotheses are merely statements based on common sense or on other reports or papers. The theory behind a value proposition being tested is also not clear. Further, evidence of record demonstrates that even Public Service had little confidence in the report. While the MetaVu report was completed as requested by the Commission, its usefulness is of dubious value.

#### d. Summary

- 137. It is apparent that Public Service failed to meet its burden of proof as established by the Commission in order to recover the balance of its SGC investment. While the Company did provide important information regarding the lessons learned and benefits associated with utility benefits from SGC, there is little to satisfy the requirement that it demonstrate the credible promise of consumer benefits that are sufficient to justify the cost overruns.
- 138. The Company also failed to provide significant information as required by the Commission and by Hearing Commissioner Baker, especially a cost-benefit analysis regarding SGC. The volumes of evidence and exhibits the Company did provide do little to assuage the concerns of the Commission as articulated in Decision No. C11-0139. There was also little to tie the utility-facing benefits achieved and the meager consumer-facing benefits with any showing of cost-effectiveness of SGC as required by Decision No. R12-0233-I. Further, there was minimal evidence available to demonstrate that SGC holds a coherent and valuable future or that the considerable cost overruns were justified. As noted by the Intervenors, Public Service has demonstrated little movement regarding SGC since March 2009. Indeed, the Company's

strategy to move the IHSD program outside of SGC is a significant indication of Public Service's lack of confidence in the SGC program.

139. Therefore, it is found that Public Service has failed to provide sufficient evidence as to the criteria established by the Commission in Decision No. C11-0139 that the balance of the SGC costs of approximately \$16.6 million should be found to be prudently expended. Public Service failed to meet its burden of proof in this proceeding that the costs beyond \$27.9 million were prudently expended. As a result, its Application for recovery of the balance of SGC costs is denied. As this is the Company's second attempt at full cost recovery for SGC costs, it is further found that the Application for the recovery of the balance of SGC costs will be denied with prejudice. No reason can be discerned to allow a third attempt at cost recovery of the SGC cost balance.

#### III. ORDER

#### A. The Commission Orders That:

- 1. The Application for SmartGridCity Cost Recovery of Public Service Company of Colorado seeking to recover the balance of the capital investment costs it incurred related to the SmartGridCity project that were not included in rate base per Decision No. C11-0139 in Docket No. 10A-124E issued February 8, 2011 is denied with prejudice consistent with the discussion above.
- 2. This Recommended Decision shall be effective on the day it becomes the Decision of the Commission, if that is the case, and is entered as of the date above.
- 3. As provided by § 40-6-106, C.R.S., copies of this Recommended Decision shall be served upon the parties, who may file exceptions to it.

Decision No. R13-0096

DOCKET NO. 11A-1001E

a) If no exceptions are filed within 20 days after service or within any extended period of time authorized, or unless the recommended decision is stayed by the Commission upon its own motion, the recommended decision shall become the decision of the Commission and subject to the provisions of § 40-6-114, C.R.S.

b) If a party seeks to amend, modify, annul, or reverse a basic finding of fact in its exceptions, that party must request and pay for a transcript to be filed, or the parties may stipulate to portions of the transcript according to the procedure stated in § 40-6-113, C.R.S. If no transcript or stipulation is filed, the Commission is bound by the facts set out by the administrative law judge; and the parties cannot challenge these facts. This will limit what the Commission can review if exceptions are filed.

4. If exceptions to this Recommended Decision are filed, they shall not exceed 30 pages in length, unless the Commission for good cause shown permits this limit to be exceeded.

SE OF COLORADO Y

(SEAL)

ATTEST: A TRUE COPY

PAUL C. GOMEZ

THE PUBLIC UTILITIES COMMISSION OF THE STATE OF COLORADO

Administrative Law Judge

Doug Dean, Director