

STATE OF ILLINOIS
ILLINOIS COMMERCE COMMISSION

THE PEOPLES GAS LIGHT :
AND COKE COMPANY :
 : No. 11-____
Proposed General Increase :
In Rates For Gas Service :

Direct Testimony of

THOMAS CONNERY

Supervisor, Gas Supply Trading
Integrys Business Support, LLC

On Behalf of

The Peoples Gas Light and Coke Company

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1 **I. INTRODUCTION AND BACKGROUND**

2 **A. Witness Introduction**

3 Q. Please state your name and business address.

4 A. My name is Thomas Connery. My business address is 130 East Randolph Street,
5 Chicago, Illinois 60601.

6 Q. By whom are you employed and what is your current position?

7 A. I am the Supervisor, Gas Supply Trading for Integrys Business Support, LLC (“IBS”), a
8 wholly-owned subsidiary of Integrys Energy Group, Inc. (“Integrys”).

9 Q. For whom are you providing testimony?

10 A. I am providing testimony for The Peoples Gas Light and Coke Company (“Peoples
11 Gas”), which is an indirect wholly-owned subsidiary of Integrys.

12 **B. Purpose of Testimony**

13 Q. What is the purpose of your direct testimony?

14 A. The purpose of my direct testimony is to describe and support proposed changes to
15 Peoples Gas’ large volume transportation programs. I provide an overview of
16 requirements of Peoples Gas’ last general rate case order (Docket Nos. 09-0166/09-0167
17 (cons.) (“2009 Rate Case”)) affecting the company’s transportation programs. The steps
18 Peoples Gas took to comply with two items from the 2009 Rate Case Order are discussed.
19 Specifically, the primary issues reviewed here are Peoples Gas’ participation in
20 developing and vetting proposals among the Illinois Commerce Commission (“ICC” or
21 “Commission”) Staff and interested parties to address (1) equitable access to and
22 allocation of storage for the small volume transportation program (Rider AGG,

23 Aggregation Service) and (2) the unbundling of storage and standby service for large
24 volume transportation Rider SST, Selected Standby Transportation Service. I discuss the
25 methodology developed for the Rider AGG access and allocation issues, and I show the
26 applicability of the general analytic framework developed for that program to the
27 unbundling of the storage and standby services of Rider SST. Peoples Gas further
28 demonstrates that application of the equitable access and allocation model to its other
29 transportation program (Rider FST, Full Standby Transportation Service) is necessary to
30 provide equitable and consistent access to and allocation of the company's storage assets
31 across all company transportation programs. Peoples Gas' witnesses John McKendry
32 (PGL Ex. 15.0) and Valerie Grace (PGL Ex. 12.0) also address changes to the
33 transportation programs affected by the structural changes proposed here.

34 **C. Summary of Conclusions**

35 Q. Please summarize your conclusions regarding modifications to the transportation
36 programs.

37 A. In brief, the conclusions of my direct testimony are that Peoples Gas' large volume
38 transportation programs need to be modified in the following ways to accommodate the
39 equitable access to and allocation of the company's storage assets:

40 1. The unbundling of Rider SST storage and standby services can be accomplished and the
41 products of that unbundling are stand-alone storage and standby services.

42 2. A review of the assets supporting those stand-alone services provides two conclusions:
43 That the assets supporting the storage service are exactly the same as the storage asset
44 group identified and analyzed in the development of the small volume storage access
45 review; and that the assets supporting the standby service, which now exclude all storage

46 assets, cannot support the no-notice feature of the standby service currently offered under
47 Rider SST.

48 3. Given that Peoples Gas developed guidelines to define access to (operating parameters)
49 and the equitable allocation of the storage asset group, those general parameters logically
50 apply to any class of customers' storage rights. Specifically, the monthly and daily
51 operating parameters developed under the equitable access to and allocation of storage
52 model should be adapted to the Rider SST storage service.

53 4. The unbundled standby service, due to the absence of any storage support, is not practical
54 to provide and is proposed to be eliminated.

55 5. Elimination of the unbundled standby service produces the conclusion that Rider SST
56 should be renamed to identify it as a pure storage service—Storage Balancing Service,
57 Rider SBS.

58 6. Consistent application of the equitable access to storage model across all transportation
59 programs is necessary to align those programs' storage operating parameters with the
60 actual operating capabilities of company storages in meeting varied daily and seasonal
61 system demands. To provide that consistency, Peoples Gas is proposing to adapt the
62 equitable storage access model to the operating parameters of Rider FST. It has already
63 filed appropriate changes to the small volume transportation program.

64 **D. Itemized Attachments to Direct Testimony**

65 Q. Are you sponsoring any exhibits?

66 A. Yes, I am sponsoring the following exhibits:

Exhibit No.

PGL Ex. 14.1	Design Peak Day Supply Portfolio
PGL Ex. 14.2	Storage Capacity
PGL Ex. 14.3	Storage Inventory Target Levels (CFY Program Workshop)
PGL Ex. 14.4	Daily Storage Access Parameters (CFY Program Workshop)
PGL Ex. 14.5	Storage Inventory Target Levels (Proposed)
PGL Ex. 14.6	Daily Storage Access Parameters (Proposed)

67 **E. Background and Experience**

68 Q. Please outline your educational background and business experience.

69 A. In 1979, I received my Bachelor of Science degree in Civil Engineering from the
70 University of Illinois at Champaign-Urbana. In 1983, I received my Master of Science
71 degree in Industrial Administration from Carnegie-Mellon University in Pittsburgh,
72 Pennsylvania. I spent 10 years working for Amoco Corporation in finance and economic
73 analysis; seven years for Nicor, Inc. in rate design, gas supply planning, and treasury
74 operations; three years for Exelon Corporation in treasury operations and electric supply
75 risk management; and eight years for Integrys, beginning with Peoples Gas' parent,
76 Peoples Energy Corporation, and now with IBS, in credit management and, since 2008,
77 in my current position in gas supply.

78 Q. What are your responsibilities in your present position?

79 A. I supervise all daily and monthly gas purchasing; daily pipeline transportation
80 nominations and scheduling in support of all gas purchase activities; daily and monthly
81 planning and scheduling of all leased storage activities; and natural gas hedge trade
82 execution.

83 **II. CURRENT TRANSPORTATION PROGRAMS**

84 Q. Please provide a brief overview of the transportation program.

85 A. Peoples Gas first made transportation available to large volume customers in the mid-
86 1980s. The current riders that set forth the detail of transportation service were largely
87 put in place in Peoples Gas' 1995 rate case (Docket No. 95-0032), with limited
88 modifications introduced in 2007 (Docket Nos. 07-0241/07-0242 (cons.) ("2007 Rate
89 Case")). Peoples Gas first offered a small volume transportation program on a pilot basis
90 in 1997 and then to all small volume customers in 2002. In Peoples Gas' 2009 Rate
91 Case, the Commission directed Peoples Gas to work with the ICC Staff and interested
92 parties to: (1) address several program features, including access to company assets for
93 small volume transportation customers (Riders CFY, Choices For Yousm Transportation
94 Service and AGG), and, (2) unbundle its storage and standby service for one of the
95 programs available to its large volume transportation customers (Rider SST).

96 **III. SMALL VOLUME TRANSPORTATION**

97 Q. Has Peoples Gas worked with Staff and interested parties to address changes to its small
98 volume transportation program ("CFY Program")?

99 A. Yes, Peoples Gas worked with Staff and interested parties to address access to company
100 assets. (Peoples Gas also agreed to implement other program changes that are not
101 addressed in my testimony in this proceeding.) As a product of the workshop process,
102 Peoples Gas prepared and filed with the ICC revised tariffs for the CFY Program.

103 Q. What did the ICC direct Peoples Gas to include?

104 A. The ICC directed Peoples Gas to work with Staff and interested parties to "formulate
105 language that tailors the Nicor choice program provisions for access to and allocation of

106 company assets to the Utilities' operations" and, specifically, to develop month-end
107 storage inventory target levels, daily injection and withdrawal rights, and a daily delivery
108 tolerance. (2009 Rate Case Order, pp. 253-254).

109 Q. How did Peoples Gas develop Nicor-style access parameters for its CFY Program?

110 A. Peoples Gas conducted two primary analyses modeling the capabilities of its assets—one
111 modeling the daily injection and withdrawal rights and another modeling the month-end
112 storage inventory target levels. Peoples Gas adapted the Nicor-style 10% of estimated
113 daily use tolerance as directed.

114 Q. In this proceeding, is Peoples Gas proposing changes to its CFY Program?

115 A. None that affect the services, but it is updating charges. Also, Peoples Gas is proposing
116 to revise the gas charge related storage charge in Rider CFY to mirror that being
117 proposed for the large volume programs. Ms. Grace discusses the changes being made to
118 Rider 2 to address this change. In addition, Peoples Gas recently filed changes to its CFY
119 Program to implement the changes it agreed to during the workshop process. The CFY
120 Program changes, filed January 27, 2011, are pending at the Commission. However, the
121 broader month-end storage inventory target levels and reduced Critical Supply Shortage
122 Day delivery requirement (27% vs. 31%) that Peoples Gas developed within the large
123 volume transportation collaborative would also be appropriate for the CFY Program. If
124 the Commission adopts these target levels and the delivery requirement for the large
125 volume program, Peoples Gas expects that it would file changes to Rider AGG to include
126 these broader ranges and the lower delivery requirement.

127 Q. How do the recently filed CFY Program changes relate to the large volume program
128 proposals in this proceeding?

129 A. Those changes and, more importantly, the analyses underlying those changes, provide
130 much of the framework for the changes to the large volume transportation programs that
131 Peoples Gas is proposing. In order to unbundle storage service from standby service,
132 Peoples Gas needed to analyze the capabilities of its storage assets in much the same way
133 as for the CFY Program. Consequently, many of the CFY Program storage-related terms
134 and conditions translate directly to the large volume program, and I will describe in detail
135 the process that led to the CFY Program changes solely to show how this process led to
136 the changes Peoples Gas is proposing in this proceeding for the large volume program.

137 **IV. ANALYTIC FRAMEWORK**

138 Q. Please describe the general structure of your storage access modeling.

139 A. Peoples Gas reviewed its owned and leased storage, transportation, and peaking (e.g.,
140 Liquefied Natural Gas gasification) assets to determine which were storage related. As a
141 result of that review, all company-owned and leased storage services, as well as, all
142 peaking assets and some storage-related transportation assets (i.e., transportation capacity
143 needed to deliver gas to storage for injections or deliver storage withdrawals to Peoples
144 Gas' citygate) were categorized as storage-related ("storage"). Peoples Gas used its
145 Design Peak Day Supply portfolio ("DPDS") as a guide for this analysis (see PGL Ex.
146 14.1) to ensure that all parties received a fair allocation of company storage deliverability
147 on a peak day and that all of the storage attributes and capabilities (e.g., capacity, daily
148 balancing and peaking) are fairly allocated based on a peak day allocation methodology.
149 The exhibit shows both the data used during the CFY Program workshops and the data

150 for the 2012 test year in this proceeding. As shown in the exhibit, the deliverability of
151 each storage element has not changed on an MMBtu/Day basis though, due to a change in
152 the Design Peak Day (“DPD”), the percentage of DPD values have changed slightly. The
153 total storage contribution for the test year increased from 72% to 75% of the DPD. The
154 capacity of these storage assets is shown in PGL Ex. 14.2. The storage capacities are
155 presented to describe that attribute of the storage assets, as many of the operating
156 parameters of storage are defined on a capacity basis.

157 Q. What is the Design Peak Day Supply portfolio?

158 A. The DPDS refers to the collection of resources available to Peoples Gas on its design
159 peak day (“DPD”) to serve its customers. Peoples Gas’ DPD is defined as the sendout
160 expected to occur on a January weekday with a temperature of -20 degrees Fahrenheit
161 (equivalent to 85 degree days) and an average wind speed of 23.5 miles per hour (mph)
162 following a day with a temperature of -2 degrees Fahrenheit and an average wind speed
163 of 21 mph where the weather-normalized monthly sales and number of customers are
164 consistent with Peoples Gas’ most recent normal weather budget forecast for the January
165 containing the DPD. The available resources include what I defined as storage plus
166 transportation capacity unrelated to storage and firm gas purchased at the citygate. See
167 PGL Ex. 14.1.

168 Q. Was any specific storage asset or capability identified to provide specific services to the
169 transportation programs or to the sales service customers?

170 A. No. All of Peoples Gas’ leased and owned storage assets were included in the studies
171 and none was set aside for any specific group. Peoples Gas owns a storage field
172 (Manlove Field), and it purchases storage services from two interstate pipelines (Natural

173 Gas Pipeline Company of America, LLC, from which it purchases two services, and
174 ANR Pipeline Company, from which it purchases one service). These pipeline services
175 are no-notice services. Peoples Gas also owns a peaking facility (an LNG facility)
176 located at Manlove Field. Peoples Gas purchases firm transportation services from four
177 pipelines, two of which support the storages. The attributes and operating requirements
178 for storage developed here are for the aggregated mix of all storages.

179 Q. Why is it appropriate to consider the storage assets portfolio in the aggregate and to
180 consider the timing of dispatch for each element in the development of the operating
181 parameters for storage services available to the transportation programs?

182 A. Each storage asset has unique operating capabilities and requirements (generally, daily
183 injection and withdrawal capabilities, peaking capability, and the operating guidelines
184 and tariff-parameters which are required to be followed to maintain the functionality of
185 the storage). The storage assets function in aggregate, complementing each other in
186 meeting Peoples Gas' daily balancing needs and varying seasonal peak sendout
187 expectations ("system demands"). The storage assets' ability to complement each other
188 in meeting system demands is significantly influenced by the order of dispatch. Peoples
189 Gas' Manlove Field delivers significant early winter peaking capability and the leased
190 pipeline storage assets provide coverage of the late winter peaking needs, as the Manlove
191 Field peaking capability diminishes. These seasonal system demands and seasonal
192 dispatch timing of the various assets are reflected—in aggregate—in the month-end
193 storage inventory target level proposed later in this testimony. Similarly, on a daily basis,
194 the order of dispatch and appropriate timing of dispatch significantly affect the
195 availability of daily injection and withdrawal rights to transportation program

196 participants. On a daily basis the company reserves some of the no-notice storage
197 balancing capabilities of its leased storages to accommodate stochastic expectations of
198 changes to sendout and transportation program deliveries subsequent to pipeline
199 nominations deadlines (“set-aside asset capabilities”). Extreme intraday changes and
200 larger changes which occur over weekends and holidays are addressed with variations to
201 Manlove Field dispatch plans. As such, the timing of the dispatch of those set-aside asset
202 capabilities is critical in determining the daily storage injection and withdrawal rights
203 available to the transportation programs. Similarly, the extreme peaking capability of
204 Manlove Field and the LNG facility is designed to meet a very limited number of
205 extreme sendout days and, is not available to meet normal daily swing needs. As such,
206 the daily swing and peaking capabilities of the individual elements of the company’s
207 storage portfolio cannot simply be tallied up to determine an appropriate level of daily
208 injection and withdrawal rights available to the transportation programs. Rather, those
209 rights need to be determined considering how the specific contribution and dispatch
210 timing of the storage assets function in aggregate to meet system demands.

211 Q. One directive from the 2009 Rate Case Order for the CFY Program was, with reference
212 to Nicor’s program, to develop monthly targets for injections and withdrawals (2009 Rate
213 Case Order at 253). What are the Nicor month-end storage inventory target levels?

214 A. The Nicor tariff defines specific ranges for each month within which customers are to
215 maintain their storage balances.

216 Q. Please describe the modeling used to tailor the Nicor storage inventory target levels to
217 Peoples Gas’ operations.

218 A. The ranges were determined by portfolio modeling which included leased storage and
219 transportation service tariff constraints, Peoples Gas' owned storage and peaking
220 operational constraints, peak day, relative peak days for each month, warm day
221 requirements, daily balancing requirements, estimated gas costs, extra pipeline charges,
222 and two pricing scenarios. The two pricing scenarios were the primary driver for
223 determining the extreme, but operationally acceptable, storage balance ranges. For this
224 analysis, operationally acceptable balance ranges were defined as storage activity which
225 did not substantively increase the chance of experiencing system imbalances and,
226 therefore, extra pipeline charges. The first pricing scenario added a storage inventory
227 benefit to the model to drive the model to keep the highest possible storage balance
228 while, at the same time, not increasing system imbalances. Similarly, the second pricing
229 scenario added a storage inventory cost to the model to determine the extreme low
230 storage balance points while still maintaining system integrity. Additionally, extreme
231 swings were permitted in the modeling for Manlove Field's daily activity. Peoples Gas
232 does not dispatch Manlove Field in this way, but, modeled it as such to produce the
233 widest possible ranges for the transportation programs.

234 Q. Why does the modeling of Manlove Field dispatch affect the results?

235 A. Modeling greater flexibility at Manlove Field than its dispatch plan results in broader
236 month-end balance ranges for the leased storages. Manlove Field is dispatched on a
237 baseload basis (i.e., following the annual cycling plan), with Peoples Gas relying, first, on
238 pipeline storage for daily swing needs. Peoples Gas alters the Manlove Field dispatch
239 plan to address large weather-related sendout variations over weekend and holiday
240 periods, extreme high or low sendout, and other operational disruptions. The initial

241 development of month-end storage inventory target levels was prepared using the broad
242 pipeline storage asset ranges developed in this modeling process coupled with Manlove
243 Field's baseload dispatch plan. The dispatch timing and planning for Manlove Field will
244 be discussed further in the discussion of daily injection and withdrawal rights.

245 Q. Why do you distinguish weekends and holidays from normal weekdays?

246 A. For normal weekdays, the nomination deadlines are at 11:30 a.m. on the day prior to gas
247 flow and, although pipelines and Peoples Gas permit nominations every day of the week,
248 it is common in the industry that nominations on Friday are for the days of Saturday
249 through Monday. If Monday is a holiday, then the nomination is through Tuesday.
250 Similarly, if a trading holiday falls in the middle of a week, the prior day nomination will
251 include two days.

252 Q. Was this modeling initial result retained through the CFY Program workshop process?

253 A. Some month-end ranges were retained and, through the workshop process, other month-
254 end targets were adjusted. These adjustments included allowing storage balances to be as
255 low as zero on March 31 ("trough") and as high as 100% ("peak") of the Allowable Bank
256 on October 31 and November 30. Though these high and low limits do not reflect the
257 reality of timing differences in the cycling schedules among the storages, through the
258 workshop process, Peoples Gas agreed to those adjustments and additional adjustments in
259 months adjacent to those months to allow for reaching the peak or trough at the then
260 prevailing daily injection or withdrawal rates (discussed later in this testimony). Peoples
261 Gas agreed to adjustments to the modeling results considering that there would likely be
262 diversity among customers balance levels—mitigating some of Peoples Gas' concern that

263 coincident extreme transportation program balances could be detrimental to the system or
264 sales customers' economic interests. See PGL Ex. 14.3 for the filed month-end ranges.

265 Q. What do you mean that the limits do not reflect the reality of timing differences in the
266 cycling schedules among the storage assets?

267 A. Manlove Field and the leased storages have operational and tariff constraints. The
268 beginning and ending of the injection and withdrawal periods differ. Also, the no-notice
269 services have out-of-season injection and withdrawal limitations. Consequently, Peoples
270 Gas does not plan for or experience a time when its inventory for all storage assets is at 0
271 or at 100% of capacity.

272 Q. One directive from the 2009 Rate Case Order for the CFY Program was, with reference
273 to Nicor's program, to develop daily injection and withdrawal rights (2009 Rate Case
274 Order at 252). What are the Nicor daily injection and withdrawal rights?

275 A. The Nicor tariff defines specific summer injection and winter withdrawal rights.

276 Q. Please describe the analysis used to tailor the Nicor daily injection and withdrawal levels
277 to Peoples Gas' operations.

278 A. As noted earlier, the availability of storage injection and withdrawal rights ("swing
279 rights") were developed with consideration of the timing of each assets dispatch. That
280 timing includes the reservation of some no-notice swing capability for the uncertainty
281 regarding sendout and transportation program deliveries which only become known after
282 the pipeline nomination deadlines. Pipeline nomination requirements specify a timely
283 nomination at 11:30 a.m. on the calendar day prior to gas flow. The "gas day" begins at
284 9:00 a.m. the next calendar day. For example, at 11:30 a.m. on Tuesday, Peoples Gas

285 nominates gas to flow at 9:00 a.m. on Wednesday. Prior to the nomination deadlines,
286 Peoples Gas reserves swing rights at the 95th percentile of certainty of the one-day
287 forecasts of sendout and transportation deliveries. PGL Ex. 14.4 presents these concepts
288 graphically.

289 Q. Please describe PGL Ex. 14.4.

290 A. In PGL Ex. 14.4, Peoples Gas' aggregate daily storage injection and withdrawal
291 capabilities are shown on a percent of total storage capacity basis. The availability of
292 daily swing capability is shown as the two dashed lines (labeled Tariff limit injection-
293 w/MLF and Tariff Limit Withdrawal-w/MLF, with "MLF" referring to Manlove Field).
294 Those lines are the tariff-driven swing capabilities of the pipeline storages coupled with
295 the baseload dispatch plan for Manlove Field. At some times swing capabilities include
296 both net injection and net withdrawal. At other times—typically in the winter—the range
297 of swing capabilities is within the withdrawal zone only—with a relatively smaller or
298 relatively larger withdrawal. The reason for this is that Manlove Field's winter
299 withdrawal period is of shorter duration and at a higher baseload rate than the summer
300 injections. Further, those withdrawal rates are larger than the then available leased
301 storage injection rights. The area between the two dashed lines represents a single day's
302 possible storage activity—without modifying the Manlove Field baseload dispatch plan.
303 Stepping in from those two dashed lines are two solid lines. The narrower space between
304 the two solid lines represents the possible, normal daily storage activity with
305 consideration for the need to reserve some no-notice capability to cover the uncertainty of
306 sendout and transportation program deliveries. This narrower space between the two
307 solid lines is also the operating space within which the company executes its normal daily

308 storage activity to meet annual cycling plans. This, too, is the space available for the
309 transportation programs to operate. To provide some perspective the graph also shows
310 the daily injection and withdrawal rates proposed for the CFY Program (the cross-
311 hatched areas) and the maximum storage peaking capability (shown as the shaded
312 withdrawal area for December through February, extending to 2.6% of the Allowable
313 Bank). The maximum storage peaking capability includes the maximum withdrawal
314 capability from Manlove Field and the full gasification capability of the LNG facility.

315 Q. How does Peoples Gas handle sendout and transportation delivery uncertainty outside of
316 the 95th percentile range or for dispatch periods longer than one day?

317 A. Peoples Gas alters the plan of Manlove Field to meet those events. For longer dispatch
318 periods (weekends and holiday weekends), for example, the sendout variation over the
319 period can be larger than the full swing capabilities of the pipeline storage assets.
320 Peoples Gas alters its plan for Manlove Field to accommodate the typically weather-
321 driven, day-over-day forecast sendout variation while reserving some of the pipeline
322 storage swing capability to cover the forecast uncertainty and transportation program
323 delivery uncertainty. Following a significant shift in the Manlove Field dispatch plan, the
324 Manlove Field operation group will prepare a revised dispatch plan to adjust for the
325 deviation and track back to the seasonal balance target. The availability of injection and
326 withdrawal rights for transportation programs should reflect those available prior to the
327 pipelines' timely nominations deadline.

328 Q. Did Peoples Gas consider using flat seasonal injection or withdrawal rights?

329 A. Yes. Peoples Gas considered flat rates but flat rates reflecting the highest available
330 seasonal capability would provide too much swing availability in the shoulder months

331 when the storages are turning around and weather-driven sendout uncertainty is high.
332 The term “shoulder months” refers to months of transition between winter (withdrawal
333 period) and summer (injection period), notably March, April, October and November.
334 Alternatively, flat rates that reflect the low availability of swing capabilities during the
335 shoulder months would unnecessarily restrict rights in other months.

336 Q. What risks result from providing too much swing capability for the transportation
337 groups?

338 A. Allowing the transporters excessive injection or withdrawal rights creates the potential
339 for those customers to utilize other customers’ swing rights to inject or withdraw more
340 than their equitable share of gas into or out of storage. For example, Peoples Gas
341 proposed reduced injection rights for October, which is a month with reduced injection
342 capabilities and increased weather-driven sendout uncertainties. In a perceived low price
343 environment, high injection levels by transportation customers would disproportionately
344 reduce purchase and injection opportunities for sales customers.

345 Q. How did Peoples Gas tailor the Nicor choice provisions for allocation of access to assets
346 to Peoples Gas’ operations?

347 A. Like Nicor, Peoples Gas allocates access on a DPD basis. Specifically, the allocation is
348 done on a customer or pool Maximum Daily Quantity (“MDQ”) relative to Peoples Gas’
349 DPD sendout. This is accomplished by calculating the storage capacity on a peak day
350 basis (i.e., by dividing the total capacity of storage by Peoples Gas’ DPD), which is
351 defined as Days of Storage. Peoples Gas then allocates that full complement of storage
352 days to each customer.

353 Q. What is the MDQ?

354 A. The MDQ is designed to represent the customer's peak day usage. It is generally based
355 on actual meter reading data for customers with daily demand measurement devices and
356 is determined by a calculation stated in the tariff for other customers. Each transportation
357 customer has an MDQ. A supplier's pool has an MDQ that is the sum of the customer
358 MDQs that are part of the pool.

359 Q. Does the basis or analytic framework described here differ from those used in the
360 development of the company's proposals in its 2007 Rate Case?

361 A. The basis in both cases was the same—the system demands and the operating capabilities
362 of the company's assets. The particulars of the analytic framework used to define and
363 resolve the access to storage issues changed. The changes include the modeling of the
364 daily reserve for sendout and transportation program delivery uncertainty, the exclusion
365 of asset peaking-only capabilities for use as normal daily swing rights, and modeling of
366 the month-end storage target extreme positions. Those changes were utilized in
367 preparation for addressing the Commission order to adopt the Nicor tariff storage
368 operating parameters to the company's asset capabilities. The same modeling was
369 utilized to address the Commission order on unbundling Rider SST storage and standby
370 service. Those modeling developments are also what the company uses currently for its
371 long-term portfolio planning and seasonal and daily dispatch planning. The company
372 used the same modeling framework in the review of Rider FST, bringing a consistent
373 modeling framework to all of its transportation programs. The combination of those
374 three reviews is the basis of this rate case presentation. So, the fundamental basis of the

375 analysis remains the same as in the 2007 Rate Case, but the mechanics of the analytic
376 framework have been updated to the company's current practices.

377 **V. LARGE VOLUME TRANSPORTATION - RIDER SST UNBUNDLING**

378 Q. In the 2009 Rate Case, the Commission directed “the Utilities to work with Staff and all
379 other interested stakeholders to develop reasonable proposals for unbundling storage
380 service.” (2009 Rate Case Order at 235). What changes is Peoples Gas proposing in
381 response to that directive?

382 A. Based on the storage analysis described above and its application to Rider SST, Peoples
383 Gas is proposing: (1) to offer a stand-alone storage banking service (Rider SBS) under
384 which customers select the amount of storage capacity that they wish, from one day of
385 storage to the maximum amount available; (2) to include monthly inventory targets
386 (minimum and maximum) for all months with monthly cashouts to the extent a customer
387 falls outside the ranges; (3) to include daily injection and withdrawal limits, with
388 appropriate distinctions for Critical Days and Operational Flow Order (“OFO”) Days,
389 with daily cashouts to the extent a customer falls outside the ranges; (4) to facilitate
390 customer's move to the unbundled service by including a daily tolerance around the daily
391 ranges; and (5) to eliminate the no-notice standby service because such a service requires
392 storage assets and those assets are fully allocated to the unbundled, standalone storage
393 service.

394 Q. What key Rider SST features stay the same?

395 A. Rider SBS, like Rider SST, will still be a daily measurement service. Customers will
396 continue to be able to transfer their contracts to a supplier to manage in a pool, and the
397 pool supplier will be able to aggregate many contracts' Allowable Banks to take

398 advantage of possible diversity within the pool to stay within monthly and daily
399 requirements. Existing nomination flexibility and Allowable Bank trading rights remain
400 intact.

401 Q. How did Peoples Gas address the Commission's directive to unbundle the storage and
402 standby services provided under Rider SST?

403 A. Peoples Gas worked with Staff in developing a proposal which was subsequently
404 forwarded to other interested stakeholders for comment.

405 Q. How is standby and storage bundled today in Rider SST?

406 A. Currently, Rider SST customers select a standby percentage ("SSP") in their contracts
407 which is used to determine the size of their Allowable Bank ("AB") as well as their level
408 of standby service. Their AB is determined in a calculation which applies the SSP to
409 available Gas Charge bank days and, for Service Classification No. 4 customers, also to
410 the available Base Rate bank days, and the customer's MDQ. (Service Classification
411 Nos. 2 and 8 customers currently receive all Base Rate bank days, without applying the
412 SSP.) A diversity factor is currently applied to the available Gas Charge bank days in the
413 calculation as well. (As discussed below, Peoples Gas is proposing to eliminate the
414 diversity factor.) Customers pay a standby demand charge (adjusted for the diversity
415 factor) which covers the gas charge related costs of providing both the standby and
416 storage features of this service in addition to base rate storage charges. Ms. Grace
417 discusses the base rate storage costs.

418 Q. How will the size of a customer's storage bank and their charges be determined under
419 Rider SBS?

420 A. Under Rider SBS, customers will select the total days of bank of MDQ that they desire.
421 Customers will be allowed to select a minimum of one day of storage up to the maximum
422 days shown in Peoples Gas' annual filing. In addition, customers may request additional
423 capacity and, if there is unsubscribed capacity, the company will allocate that
424 unsubscribed capacity, as discussed by Mr. McKendry. The AB capacity will no longer
425 be tied to a standby selection. The AB will be the elected (or total awarded for customers
426 requesting and receiving more than the maximum) days of bank multiplied by their
427 MDQ. As a result of this selection process—which is now independent of standby
428 service—and the construction of the Storage Gas Charge, Rider SBS customers will no
429 longer pay the gas costs related charges for standby. Ms. Grace discusses the proposed
430 Storage Gas Charge which will replace the standby demand charge for Rider SBS
431 customers as well as the unbundling of other base rate storage charges.

432 Q. How did Peoples Gas develop its unbundling proposal?

433 A. As described above, Peoples Gas reviewed the assets used to support Rider SST storage
434 and standby services. As a result of that review, all company owned and leased storage
435 services, as well as, all peaking assets and some storage-related transportation assets (i.e.,
436 transportation needed to deliver gas to storage for injections or deliver storage
437 withdrawals to Peoples Gas' citygate) were categorized as storage-related ("storage").
438 Peoples Gas' leased long-line transportation (not directly supporting storage) and winter
439 citygate-delivered physical call options were categorized as non-storage. To accomplish
440 unbundling of storage and standby service, Peoples Gas examined the characteristics of
441 the storage-related and non-storage-related asset pools to create a separation of storage
442 and standby services.

443 Q. What is standby service?

444 A. Standby service allows a transportation customer to purchase gas from Peoples Gas up to
445 an amount selected by the customer. The amount is expressed as a percentage of the
446 customer's MDQ (the SSP referenced above). To the extent the customer's own
447 deliveries, including what is available from its storage (i.e., the "Allowable Bank") are
448 insufficient to meet the customer's requirements, it will purchase, at a market price, the
449 difference from Peoples Gas up to its standby rights. The customer does not nominate
450 the amount of standby gas it wants to purchase; the purchase happens automatically as an
451 after-the-fact part of the order of deliveries to the customer. This is why I refer to
452 standby service as a "no-notice" service.

453 Q. Does the CFY Program have standby service?

454 A. No. Peoples Gas has designed its CFY Program such that alternative gas suppliers
455 serving Rider CFY customers are required to deliver enough gas to meet the customers'
456 requirements. The changes to Rider AGG that Peoples Gas filed in response to the 2009
457 Rate Case workshop process do not change that feature of the program. Consequently,
458 the storage proposals for the large volume program have a parallel with the small volume
459 program, but the standby service questions were limited to the large volume program.

460 Q. Is the storage asset pool developed here the same as the one developed in the CFY
461 workshop?

462 A. Yes. It is exactly the same.

463 Q. Does it operate differently for the large volume transportation programs than for the CFY
464 Program?

465 A. No. The storage asset pool developed here and for the CFY Program is the aggregation
466 of all of Peoples Gas' storage assets. The operation of those assets is the same. The
467 model developing access to and the equitable allocation of storage would be applicable
468 for this, or any, class of customers.

469 Q. Does the model developed for access to storage provide some guidance for unbundling
470 storage from standby service under Rider SST?

471 A. Yes. Because the operating characteristics and the allocating method for that storage
472 asset group was developed in the CFY workshop, that same framework is applicable
473 here.

474 Q. Are any of the parameters from the CFY Program directly usable for defining appropriate
475 operating parameters for the unbundled storage asset pool?

476 A. Yes. Peoples Gas believes that the parameters developed for the month-end storage
477 inventory target levels and daily injection and withdrawal rates are directly applicable
478 here.

479 Q. Do the daily delivery ranges developed for the CFY Program have a parallel in the Rider
480 SST?

481 A. No. That concept applies to non-daily read customers, where Peoples Gas is providing
482 estimated daily use data as input for the daily delivery range. Rider SST customers must
483 have a daily demand measurement device. The CFY Program does not require daily
484 measurement. (Rider FST also does not require daily measurement, but daily delivery
485 ranges are not currently, and Peoples Gas does not propose that they be, a feature of that

486 service.) Further, the 10% of estimated daily use factor within the daily delivery range
487 similarly does not have a parallel for Rider SST.

488 Q. Are any modification proposed for the month-end storage inventory target levels?

489 A. Yes. Based on a request received during the large volume transportation collaborative
490 the width of the month-end ranges (i.e., the difference between the high and low balance
491 targets) have been widened. The company based the range expansion on updated model
492 parameters and extension of the balance diversity considerations utilized in the
493 broadening the ranges within the CFY workshop. The proposed storage inventory target
494 ranges are presented in PGL Ex. 14.5.

495 Q. Would utilizing the daily injection and withdrawal rate schedule from the CFY Program
496 represent an equitable allocation of access to storage for Rider SST?

497 A. Yes, as the CFY Program's daily injection and withdrawal rate schedule was developed
498 with a company-wide access to storage view, it provides a guide for access to the storage
499 capabilities and operating requirement for any group of customers desiring storage
500 access.

501 Q. Does a similar argument hold for utilizing the month-end storage inventory target levels
502 for any group of customers?

503 A. Yes, by the same logic (i.e., the development of month-end storage inventory target
504 levels with a company-wide view of equitable storage access operating requirements)
505 those parameters also provide a definition of the operating characteristics of access to
506 storage.

507 Q. What are the implications of the non-storage-related asset pool's support of standby
508 service?

509 A. The non-storage-related asset pool consists of pipeline transportation and citygate-
510 delivered physical call options. The elements of this group of assets are all nominated
511 services. They are all nominated on a day-ahead basis. The decisions to utilize them are
512 made in the morning dispatch meeting; they are among the services nominated in the
513 pipeline morning timely cycle (11:30 a.m. the day prior to gas flow). By definition from
514 the asset classification process (creating the pure storage group and this non-storage-
515 related asset group) this group of assets has no storage components and no no-notice
516 attributes. As such, this group of assets cannot support any no-notice supply service.
517 The current Rider SST standby service is a no-notice supply service, and, as a result of
518 this analysis and the directive to develop proposals to unbundle storage services, Peoples
519 Gas concludes that it can no longer support this type of standby service for this rider.

520 Q. How does Peoples Gas propose to address the implications of the non-storage-related
521 asset pool's inability to support standby service?

522 A. Peoples Gas proposes to eliminate standby service from Rider SST and because the
523 remaining service is a pure storage service, the service is proposed to be identified as
524 Storage Banking Service (Rider SBS). The costs associated with the non-storage-related
525 asset pool will not be included in charges for Rider SBS.

526 Q. Why can't the Rider SST transporters continue to receive standby service?

527 A. The current standby is structured as a no-notice service; that is, it is not nominated. It is,
528 necessarily, supported by storage activity. As a product of the unbundling process, with
529 all storage assets segregated out of the standby service, there is no longer storage asset

530 support for the no-notice feature. Providing a continuation of that type of standby service
531 would require the utilization of some of the sales customers' equitable share of Peoples
532 Gas' storage operating capability.

533 Q. If large volume transportation customers wish to continue to receive standby service, will
534 Peoples Gas offer any alternatives?

535 A. Yes. Rider FST will continue to be a bundled service, and those large volume
536 transportation customers will receive the standby service they have today, with limited
537 exceptions. The exceptions being partial unavailability on Operational Flow Order
538 ("OFO") Supply Shortage Days and Critical Supply Shortage Days. Those exceptions
539 translate into a delivery obligation for a portion of their MDQ—a parallel to the
540 implementation of the access model for the CFY program. Standby service is not part of
541 the CFY Program because that program includes a company-provided daily delivery
542 range that is intended to ensure that CFY Suppliers deliver sufficient gas to meet their
543 customers' requirements.

544 Q. Do the changes proposed here to accomplish the unbundling of storage and standby
545 service coupled with equitable access to storage represent a significant operational
546 change for these transportation customers?

547 A. It may be for some.

548 Q. What does Peoples Gas propose to ease that transition?

549 A. Peoples Gas proposes a Daily Balancing Tolerance ("Tolerance") band about the daily
550 injection and withdrawal rights to provide additional storage injection and withdrawal
551 flexibility under Rider SBS. The band is proposed to be 25% of the largest daily

552 injection or withdrawal rate for that season (summer/injection or winter/withdrawal). For
553 the injection season (the months of April through October), the band is proposed to
554 extend the injection rights and add injection period withdrawal rights at a rate of 100% of
555 the added injection period injection rate. For the withdrawal season (the months of
556 November through March), the band is proposed to extend the withdrawal rights and add
557 withdrawal period injection rights at a rate of 50% of the added withdrawal season
558 withdrawal rate. The difference in the opposite direction rights is that, as a practical
559 matter, Peoples Gas’ storage assets are in withdrawal mode over a shorter, more intense
560 withdrawal period timeframe compared to the longer injection period. The Tolerance
561 band is displayed on the graph in PGL Ex. 14.6 as shaded areas (labeled “Proposed SBS
562 Inj Tolerance” and “Proposed SBS Wd Tolerance”) just outside the
563 crosshatched/patterned areas (labeled “Base Inj” and “Base Wd”) which are the
564 negotiated daily rights produced from the CFY workshop. Note that those base injection
565 and withdrawal levels are considerably broader than the storage parameters for the
566 company’s normal operations which would be the space between the two solid lines on
567 the graph (labeled “Asset Availability – Low” and “Asset Availability – High”). The
568 base injection and withdrawal levels and asset availability lines are the same as those
569 presented in PGL Ex. 14.4. The company’s storage peaking capability is included to
570 provide perspective on the withdrawal side (labeled Proposed Critical Day Wd”), and is
571 also the same as in PGL Ex. 14.4. The current Maximum Daily Nomination (“MDN”)
572 injection factor of 0.67% is added to provide perspective on the injection side (labeled as
573 “Current MDN Factor: 0.67% of AB”). Proposed changes to the MDN factor are
574 discussed below.

575 Q. How is this Tolerance accomplished under the equitable access framework?

576 A. It does not comport with the equitable access framework, as it is a direct subsidy from
577 sales customers. Rather, it represents a tradeoff between gradualism in rate design
578 change and equity.

579 Q. How does Peoples Gas propose to address daily long or short positions outside of
580 available injection, withdrawal and tolerance levels?

581 A. Peoples Gas proposes to cash out daily long or short positions which exceed the total
582 available injection or withdrawal rates. A “long” position means that the customer has
583 delivered more gas to Peoples Gas than its rights support. A “short” position means the
584 customer has delivered insufficient gas. For a normal operating day (or non-Critical/non-
585 OFO day), the cashout is proposed to be: Peoples Gas buys long positions from the
586 customer at 90% of the Daily Index-Low price and sells gas to the customer to fulfill
587 short positions at 110% of the Daily Index-High price. For OFO Supply Surplus days
588 (discussed below), the cashout is proposed to be: Peoples Gas buys long positions from
589 the customer at 50% of the Daily Index-Low price, and on an OFO Supply Surplus Day
590 or a Critical Supply Surplus Day sells to fulfill short positions at the Daily Index-
591 Midpoint price if the customer’s Allowable Bank is empty. For OFO Supply Shortage
592 days, the cashout is proposed to be: Peoples Gas sells to fulfill short positions at 200% of
593 the Daily Index-High price and on an OFO Supply Shortage Day or a Critical Supply
594 Shortage Day buys long positions at the Daily Index-Midpoint price if the customer’s
595 Allowable Bank is full. For Critical Supply Surplus Days, the cashout is proposed to be:
596 Peoples Gas buys long positions at the Daily Index-Midpoint price and the customer is
597 charged the Critical Supply Surplus Day Rider 9 charge of \$6.00 per therm. For Critical

598 Supply Shortage Days, the cashout is proposed to be: Peoples Gas sells to fulfill short
599 positions at the Daily Index-Midpoint price and the customer is charged the unauthorized
600 use charge of \$6.00 per therm. (Peoples Gas is proposing no changes to the amount of
601 the unauthorized use charges.) The referenced daily indices refer to different prices
602 published by Gas Daily for Chicago citygate deliveries. Peoples Gas already uses Gas
603 Daily pricing for different purposes in its tariff, and these terms are defined. Gas Daily
604 publishes a daily price for a “common” and an “absolute” range. The “Low” and “High”
605 price refer to the low and high end of the common range. The midpoint is the midpoint
606 of the common range.

607 Q. Are the cashout mechanism values cost based?

608 A. No. They were selected to influence behavior in two ways. The normal operations day
609 charges are intended to cause customers to elect storage service levels adequate to meet
610 normal daily balancing needs and to not habitually overrun daily limits once selected.
611 The normal operating day charges are not intended to be punitive for what is expected to
612 be only occasional long or short activity that does not significantly affect Peoples Gas’
613 operations. Charges for OFO days are intended to be much more of an influence on a day
614 where Peoples Gas has declared that operating capabilities are stressed. Critical Day
615 charges are not proposed to change, remaining strong disincentives to be out of
616 compliance, and are imposed under operating conditions of extreme stress. Alternative
617 suppliers should not plan on buying gas from or selling gas to the company, and the
618 pricing of the cashout quantities should not make this an attractive option.

619 Q. What is a normal operating day?

620 A. A day that is not a Critical Day or an OFO day.

621 Q. What is the difference between a Critical Day and an OFO Day?

622 A. Generally, Peoples Gas calls Critical Days under extreme sendout conditions (very high
623 or low relative to normal) where company-owned and pipeline systems are operating at
624 or near capacity. The criteria for calling a Critical Day are currently contained in Peoples
625 Gas' tariff, and Peoples Gas is proposing no changes. An extreme condition day will
626 continue to be designated as either a Critical Supply Shortage Day or a Critical Supply
627 Surplus Day. OFO conditions would be less severe, but are such that the levels of
628 flexibility of the company's storage assets is limited to such an extent that injection and
629 withdrawal capabilities of storage used to meet the uncertainties of sendout and
630 transportation deliveries are unavailable or severely diminished. These could include on-
631 system mechanical failures or constraints and force majeure or OFO declarations or
632 injection, withdrawal or flow constraints on the pipelines. The then current or potential
633 limitations on storage flexibility to meet system balancing requires all system users to
634 more carefully align their usage, deliveries and baseload storage activities. Calling an
635 OFO Day is a means to help Peoples Gas stay within or return to its normal operating
636 plan and to avoid incurring additional costs to meet its obligations. To assist in that
637 effort, the company will, provided time permits, request transportation customer
638 assistance in increasing or decreasing deliveries to the system and, if necessary, follow up
639 by calling an OFO Day to attempt to accomplish the needed system delivery changes.

640 **VI. LARGE VOLUME TRANSPORTATION PROGRAM - RIDER FST**

641 Q. Does the equitable access to storage framework have implications for any other
642 programs?

643 A. Yes. To ensure equitable access for all customers, the framework should also be applied
644 to Rider FST.

645 Q. How does Peoples Gas propose to change Rider FST to reflect equitable access to
646 storage?

647 A. Peoples Gas proposes to adopt, with some modifications to address the absence of daily
648 metering, the equitable access to storage framework for Rider FST. The company
649 proposes a full allocation of available Allowable Bank days based on customer MDQ.
650 Some of the capabilities and responsibilities of storage, as previously discussed, are
651 easily applied to this rider, others needed some adaptation. The month-end storage
652 inventory target balances can be applied without adaptation, and are proposed here. The
653 daily injection rates can be applied to the Maximum Daily Nomination (“MDN”)
654 calculation for the injection season replacing the current 0.67% rate in the calculation.
655 The normal day, OFO Day and Critical Day features need some adaptation for this non-
656 daily metering group.

657 Q. Do the month-end storage inventory target balances apply for Rider FST?

658 A. Yes. The company proposes to adopt the storage inventory target balances at the same
659 levels as for Rider SBS. Those targets would replace the current requirements of having
660 a minimum 70% of AB balance on November 30th and the November to March one-third
661 of AB storage withdrawal limitation. Customers will be allowed to trade with other
662 Riders FST and SBS customers to meet these inventory targets prior to being subject to
663 monthly cashout. To the extent a customer falls outside the monthly range, a monthly
664 cashout process will address the excess (customer sells gas to Peoples Gas) or deficiency
665 (customer buys gas from Peoples Gas).

666 Q. Can the daily storage activity parameters be applied directly to Rider FST?

667 A. Not entirely, but with some adaptation, the primary drivers for the parameters can be
668 largely accomplished. One of the parameter drivers is to not allow unlimited access to
669 storage withdrawal on OFO and Critical Supply Shortage Days, but rather have any
670 group's access to the capabilities of those assets reflect the storages capabilities relative
671 to the overall company portfolio and be equitably allocated to that group. To accomplish
672 this, the company proposes to provide equitable access to storage on a Critical Day
673 through a corollary delivery requirement representing the non-storage component of the
674 company's Design Peak Day Supply portfolio (see PGL Ex. 14.1). For OFO Supply
675 Shortage Days, the company proposes the same delivery requirement as for a Critical
676 Supply Shortage Day. Since both the storage capabilities for the day and sendout are
677 variable, and in the absence of daily metering, rather than propose a varying delivery
678 requirement, the company opts for the consistent and simpler, though less conservative,
679 carryover from the Critical Day delivery requirement. The company also proposes to
680 adapt the access model daily injection rights to the Rider FST injection season MDN.

681 Q. What is the MDN?

682 A. Rider FST currently includes the MDN, which represents the maximum quantity of gas
683 that the customer may nominate during the injection period (April through October). The
684 MDN is designed to be sufficient to meet the customer's consumption plus fill its AB.
685 The current MDN calculation includes an injection right of 0.67% of AB capacity on a
686 daily basis. This injection limit is displayed on the graph in PGL Ex. 14.6 as a dashed
687 line indentified as "Current MDN Factor: 0.67% of AB. Peoples Gas proposes to replace
688 the 0.67% with the same monthly injection rights that are being applied to the proposed

689 Rider AGG and SBS customers. Ms. Grace describes changes to the calculation of the
690 MDN.

691 **VII. ALLOWABLE BANK CALCULATION - DIVERSITY FACTOR**

692 Q. Please describe the company's rationale for eliminating the Diversity Factor within the
693 Allowable Bank calculation.

694 A. In conjunction with the proposed changes to the calculation of the Allowable Bank days
695 (see Ms. Grace's testimony) and the equitable access to storage framework discussed
696 previously in this testimony, Peoples Gas proposes to eliminate the current diversity
697 factor within both the calculation of the Allowable Bank and the charges applied to
698 customer bills. The current methodology—which evolved over the last several rate
699 cases—is no longer valid. Customers would pay the proper amount for the services
700 received using the proposed Rider SBS charge. Therefore, continued use of the factor
701 would result in an improper allocation of storage. The company proposes to eliminate
702 the diversity factor for two reasons. First, the intention of the factor under current rates
703 (i.e., to true-up the relationship between the customer MDQ and the calculation of the
704 Days of Bank) is inconsistent with the proposed formulation of Allowable Bank days in
705 achieving equitable allocation of storage—as it would improperly reduce the allocation of
706 storage to the large volume transportation groups. Second, based on the proposed AB
707 calculation being simplified to be all available storage divided by the DPD, the proposed
708 calculation of a customer's AB generates an equitable allocation of storage.

709 Q. Does this complete your direct testimony?

710 A. Yes.