

BEFORE THE UTAH PUBLIC SERVICE COMMISSION

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IN THE MATTER OF THE  
APPLICATION OF CORIX UTAH CITY  
HEATING AND COOLING LLC TO  
ESTABLISH A THERMAL TARIFF WITH  
RATES AND TERMS OF SERVICE

Docket No. 26-2666-01

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**DIRECT TESTIMONY OF  
DOUGLAS CHONG FOR CORIX**

May 1, 2026

**CORIX EXHIBIT 3.0**

**TABLE OF CONTENTS**

<b>I. INTRODUCTION .....</b>	<b>1</b>
<b>II. PURPOSE OF TESTIMONY .....</b>	<b>2</b>
<b>I. BACKGROUND AND OVERVIEW .....</b>	<b>3</b>
<b>II. RATE DESIGN.....</b>	<b>6</b>
A. Bonbright Principles .....	6
B. Two-part Rate Structure – Fixed and Variable .....	9
C. Thermal Revenue Requirements with Unbundled and Decoupled Rates .....	10
D. Subsequent setting of rates.....	11
E. Rate Class.....	12
F. Thermal Charge Components .....	13
<b>III. REGULATORY FRAMEWORK FOR THERMAL ENERGY SUPPLY COSTS AND COST RECOVERY .....</b>	<b>13</b>
<b>IV. CALCULATION OF CARRYING CHARGE .....</b>	<b>15</b>
<b>V. REGULATORY FRAMEWORK FOR THERMAL DELIVERY COSTS AND COST RECOVERY.....</b>	<b>17</b>
<b>VI. RATE STABLIZATION WITH REVENUE DEFICIENCY DEFERRAL ACCOUNT (RDDA) .....</b>	<b>24</b>
<b>VII.DEFERRAL ACCOUNTS.....</b>	<b>26</b>
A. Delivery Deferral Account.....	26
B. Energy Supply Deferral Account.....	26
<b>VIII. OTHER MATTERS – ANNUAL REPORTS .....</b>	<b>27</b>
<b>I. OTHER MATTERS – THERMAL UNIFORM SYSTEM OF ACCOUNTS .....</b>	<b>27</b>
<b>II. CONCLUSION .....</b>	<b>28</b>

**LIST OF FIGURES**

**FIGURE 1 – Levelized and Non-Levelized Capacity Rates..... 20**

**FIGURE 2 – RDDA Balance Relative to NBV ..... 23**

1 I. INTRODUCTION

2 **Q. Please state your name, position, and business address.**

3 A. Douglas Chong, Director, Regulatory Affairs – US. My business address is 1160-1188  
4 West Georgia Street, Vancouver, BC, Canada V6E 4A2.

5 **Q. Please describe the responsibilities of your current position.**

6 A. I am responsible for regulatory affairs matters for U.S. rate-regulated utilities.  
7 Specifically, I am responsible for regulatory applications including rates and cost of  
8 service. I am also the lead individual responsible for the preparation of this initial general  
9 rate case application for Utah City District Energy Utility (UCDEU).

10 **Q. What are your qualifications to testify in this proceeding?**

11 A. I am a Chartered Professional Account (CPA) in Canada. I am also a Chartered Financial  
12 Analyst (CFA) charterholder, awarded by CFA Institute, headquartered in Charlottesville,  
13 Virginia. Additionally, I hold a Master of Business Administration degree from Simon  
14 Fraser University. I have over 30 years of professional experience in utility regulation,  
15 gained through roles at multiple public utilities (natural gas, electric, water, and thermal)  
16 and at the British Columbia Utilities Commission, a provincial rate regulator.

17 **Q. On whose behalf are you providing testimony in this proceeding?**

18 A. I am testifying on behalf of Corix Utah City Heating and Cooling LLC (Corix).

19 **Q. Have you testified in previous regulatory proceedings before this Commission?**

20 A. No.

21

22 **II. PURPOSE OF TESTIMONY**

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

24 A. My testimony supports Corix's general rate case application as well as its request for  
25 interim rates. My testimony addresses the following topics.

- 26
  - Rate design
- 27
  - Regulatory framework for thermal energy supply costs and cost recovery
- 28
  - Calculation of carrying charge
- 29
  - Regulatory framework for thermal delivery costs and cost recovery
- 30
  - Rate stabilization with Revenue Deficiency Deferral Account (RDDA)
- 31
  - Deferral Accounts
- 32
  - Other Matters – Annual Reports
- 33
  - Other Matters – Thermal Uniform System of Accounts

34 **Q. Please summarize your testimony/recommendations.**

35 A. As set forth in more detail below, I recommend that the Commission approve UCDEU's  
36 proposed rate design, regulatory framework, calculation of carrying charge, rate  
37 stabilization approach, and deferral accounts. I also recommend that the Commission  
38 establish a working group through which Corix, the Division of Public Utilities (DPU),  
39 and the Office of Consumer Services (OCS) can work collaboratively outside of this  
40 GRC proceeding to address, and potentially bring forward to this Commission: (1) a  
41 complete proposal for the adoption of a Thermal Uniform System of Accounts applicable  
42 to a heat corporation, and (2) a proposal for utility annual report filing requirements  
43 applicable to a heat corporation.

44

45 **Q. Is your testimony supported by exhibits, workpapers, or other documents?**

46 A. Yes, my testimony is supported by, and incorporates the exhibits, workpapers, and  
47 appendices referenced herein. This includes Sections 1, 4, 10-12, 23, 25, and 29–30 of  
48 the document labeled Attachment 1: Supplement to the Application. Attachment 1  
49 consolidates all of the information and support for all aspects of this rate case filing. I  
50 wrote and am responsible for the materials in the Sections of Attachment 1 referenced  
51 above and those portions of Attachment 1 are incorporated into my testimony.

52 I also include herewith the following exhibits, which I discuss below:

- 53 • Infrastructure Agreement (Corix Exhibit 3.1)
- 54 • Carrying Charge worksheet (Corix Exhibit 3.2)
- 55 • Levelized and Non-Levelized Capacity Rates (Corix Exhibit 3.3); and
- 56 • RDDA Balance Relative to NBV (Corix Exhibit 3.4).

57 **I. BACKGROUND AND OVERVIEW**

58 **Q. Were you responsible for writing Attachment 1, Section 1 Background and**  
59 **Overview.**

60 A. Yes.

61 **Q. In Attachment 1, Section 1.7.2 you describe the relationship between the Fee**  
62 **Framework in the Infrastructure Agreement and the Regulated Thermal Tariff**  
63 **Rates. Can you briefly explain this relationship?**

64 A. Flagborough is the customer and master-developer of Utah City. Flagborough and Corix  
65 are parties to an Infrastructure Agreement (IA), pursuant to which Corix agreed to be the  
66 sole provider of thermal energy within the Utah City development. This IA is filed in  
67 Corix Exhibit 3.1. At the time the IA was executed, there was uncertainty as to whether

68 the district energy utility was fully regulated, partially regulated for heating services only,  
69 or not regulated. In the absence of regulation, Corix negotiated a Cost of Service Fee  
70 Framework (Fee Framework) within the IA. In the end, Utah Code § 54-2-1 was changed  
71 on May 7, 2025 that amended the definition of heat corporation to include “a heating  
72 plant and a cooling plant operated in combination”. This Fee Framework included a  
73 number of agreed upon matters that affected the customer’s rates and terms of service. If  
74 the district energy system were to be fully or partially regulated these negotiated Fee  
75 Framework terms would be converted into a Thermal Tariff that would be approved by  
76 the Commission. The proposed Thermal Tariff in Corix Exhibit 1.0 reflects the Fee  
77 Framework for matters that include the rate structure, cost of capital assumptions,  
78 regulatory framework for delivery and energy supply costs, rate levelization also known  
79 as rate stabilization, and the creation of a revenue deficiency deferral account (RDDA) to  
80 enable rate levelization.

81 **Q. Please explain the unique situation of Corix regarding its Utah City District Energy**  
82 **Utility (UCDEU).**

83 A. This is the initial General Rate Case (GRC) Application for UCDEU to establish a  
84 Thermal Tariff including terms, conditions, and rates. This GRC Application follows the  
85 Commission’s February 2, 2026 order in Docket No. 25-26660-01 that grants Corix a  
86 conditional Certificate of Public Convenience and Necessity (CPCN) to operate as a heat  
87 corporation to provide heating and cooling services within the service area identified in  
88 the CPCN docket. Pursuant to that order, the CPCN conditioned, in part, upon the  
89 creation of an acceptable regulatory framework for rate design and terms of service.

90 Corix understands that it is the first heat corporation to operate as a regulated public  
91 utility in Utah. Being the first thermal utility of its kind, Corix will be involved in a  
92 number of first instances regarding regulatory processes and filings for a heat corporation  
93 operating as a public utility in Utah. To achieve this objective, Corix has reviewed other  
94 public utility applications and requirements including natural gas and electric  
95 corporations. Based on these reviews Corix has designed its proposed Thermal Tariff to  
96 include regulatory approaches applied to other public utilities in Utah, but with  
97 modifications suitable for a heat corporation.

98 **Q. UCDEU has a long-term build-out for the master-planned community in Utah City**  
99 **that is being developed by the developer, Flagborough L.L.C. (Flagborough). How**  
100 **does this impact the GRC Application?**

101 A. Flagborough is the master-developer of the Utah City development. The approved plans  
102 for Utah City include 64 lots with one building to be constructed on each lot. The 64  
103 buildings are scheduled to be constructed over a long-term build-out starting in 2026 and  
104 concluding in 2044. Corix understands that Flagborough will own each lot (building)  
105 through a wholly-owned affiliate(s). The IA, including the Fee Framework, applies to  
106 each customer connection in the development. Flagborough is, therefore, Corix's sole  
107 customer in the Utah City development.

108 Given these unique circumstances, Corix and Flagborough have agreed to certain  
109 matters prior to the commencement of thermal service. Key matters relevant to my  
110 testimony include rate design, rate stabilization, and regulatory deferral accounts. As a  
111 greenfield utility with a long-term build-out the customer has expressed its preference for

112 stable levelized rates. The mechanisms to achieve levelized rates during the long-term  
113 build-out of the Utah City development are discussed below.

114 **II. RATE DESIGN**

115 **Q. Please describe your role with regards to Section 4: Rate Design in Attachment 1:**  
116 **Supplement to Application.**

117 A. I am responsible for writing Attachment 1, Section 4: Rate Design which contains the  
118 proposed rate structure and regulatory framework.

119 ***A. Bonbright Principles***

120 **Q. What are the Bonbright Principles and their relevance to rate making?**

121 A. The Bonbright Principles originate from Professor James C. Bonbright's seminal work  
122 *Principles of Public Utility Rates* originally published in 1961. The principles form the  
123 foundational economic and regulatory framework for designing just, reasonable, and  
124 efficient utility rates. There are eight Bonbright Principles as explained in Attachment 1,  
125 Section 4.1.

126 The eight Bonbright Principles are:

- 127 a) Price signals that encourage efficient use and discourage inefficient use (*economic*  
128 *efficiency*);
- 129 b) Fair apportionment of costs among customers (*fairness*);
- 130 c) Avoid undue discrimination (*fairness*);
- 131 d) Customer understanding and acceptance, practical and cost effective to implement  
132 (*practicality*);
- 133 e) Freedom of controversies as to proper interpretation (*practicality*);
- 134 f) Recovery of the revenue requirement (*stability*);
- 135 g) Revenue stability (*stability*); and
- 136 h) Rate stability (*stability*).
- 137

138 These principles are used as considerations to design just and reasonable rates.

139 **Q. How are the Bonbright Principles used in rate making?**

140 A. The Bonbright Principles provide guidance when setting rates. However, the relevance  
141 and weight of each principle depends on the unique facts and circumstances faced by a  
142 utility. For example, when there are two or more customers classes then ‘fair  
143 apportionment of costs among customers’ along with ‘avoid[ing] undue discrimination’  
144 are the key principles in rate setting. If the issue faced by the utility revolves around  
145 conservation and demand response the ‘price signals that encourage efficient use and  
146 discourage inefficient use’ rise in prominence. Sometimes the key issue in a rate case is  
147 ‘rate stability’. The issue of ‘rate stability’ may arise due to rising cost of service or it  
148 may be due to a fast-growing utility adding new customers.

149 **Q. For the different matters in this GRC Application what are the relevant Bonbright**  
150 **Principles?**

151 A. **Two-part rate structure:** Corix proposes a two-part rate structure that consists of a fixed  
152 Capacity Charge and a variable Energy Charge. The relevant Bonbright Principles for  
153 this two-part rate structure are as follows:

154 **Principle a) Price signals that encourage efficient use and discourage**  
155 **inefficient use**

- 156 • the consumption portion encourages efficiency as the bill increases as the  
157 consumption increases,

158 **Principle b) Fair apportionment of costs among customers**

- 159 • fixed portion recovery infrastructure costs while the variable portion  
160 recovers customer consumption of energy costs, and

161 **Principle d) Customer understanding and acceptance, practical and cost**  
162 **effective to implement**

- 163 • the Capacity and Energy Charges are common approaches in the gas and  
164 electric industry.

165 **Decoupled Energy Charge:** Corix proposes that the Energy Charge revenues be  
166 decoupled from the actual customer consumption through the use of an Energy Charge  
167 Reconciliation Account. The relevant Bonbright Principles for the decoupling of the  
168 Energy Charge revenues are:

169 **Principle d) Customer understanding and acceptance, practical and cost**  
170 **effective to implement**

- 171 • decoupled commodity costs are common rate-making approaches for gas  
172 and electric utilities,

173 **Principle f) Recovery of the revenue requirement**

- 174 • as actual consumption changes the deferral account ensures the actual  
175 energy charge revenues recover the actual energy supply costs ensuring  
176 cost-based rates, and

177 **Principle h) Rate stability**

- 178 • the proposed energy charge rate setting mechanism promotes rate stability  
179 since it is set once a year and includes any accumulated surplus or deficit  
180 that is recovered in the next year..

181 **Rate Stabilization:** The Delivery Charge revenues proposed is levelized over the long-  
182 term build-out period period. The relevant Bonbright Principles for rate  
183 stabilization are:

184 **Principle d) Customer understanding and acceptance, practical and cost**  
185 **effective to implement**

- 186
  - a rate stabilized rate is an expectation of customers at UCDEU, and.

187 **Principle f) Recovery of the revenue requirement**

- 188
  - over the long term the accumulated revenues equal the actual/allowed

189 accumulated delivery costs thus is consistent with cost-based rates,

190 **Principle g) Rate stability**

- 191
  - the revenue deficiency deferral account stabilizes financial statement

192 reported revenue income, and

193 **Principle h) Rate stability**

- 194
  - customer rates from year to year do not experience rate volatility

195 smoothing any annual decreases/increases into more gradual rate changes.

196 ***B. Two-part Rate Structure – Fixed and Variable***

197 **Q. Please elaborate on the two-part rate structure proposed for UCDEU.**

198 A. Corix is proposing a two-part rate structure: a fixed rate component and a variable rate  
199 component that is billed monthly. The Capacity Charge (\$/kW) is a fixed rate based on  
200 the design capacity of each customer's building. The Energy Charge (\$/kWh) is a  
201 variable rate based on the thermal energy consumed by the customer.

202 **Q. Why is the proposed rate structure appropriate for UCDEU.**

203 A. The Capacity Charge is related to the fixed infrastructure required to provide thermal  
204 service. In order to service a customer building the utility must design its central energy  
205 plant, distribution piping system, and energy transfer station to meet the peak design

206 needs of the customer building. The Capacity Charge for each customer building is  
207 based on the design capacity for that building.

208 The Energy Charge is related to the utility's variable energy supply costs. The  
209 larger the measured thermal consumption, the larger the energy supply costs are incurred  
210 by the utility. Similarly, the lower the thermal consumption the lower the energy supply  
211 costs that are incurred by the utility. As such, the Energy Charge for each customer  
212 building is based on the measured consumption of that building.

213 The proposed rate structure is also consistent with the Fee Framework negotiated  
214 between Corix and the Flagborough (the customer).

215 *C. Thermal Revenue Requirements with Unbundled and Decoupled Rates*

216 **Q. Please describe the proposed rate structure with regards to the thermal revenue**  
217 **requirements.**

218 A. The proposed two-part rate structure for UCDEU is directly related to the two unbundled  
219 parts of the total thermal revenue requirement: a) the delivery revenue requirement and b)  
220 the energy supply revenue requirement. The delivery revenue requirement is directly  
221 related to the revenues arising from the fixed Capacity Charge.. The energy supply  
222 revenue requirement is also directly related to the revenues from the variable Energy  
223 Charge.

224 **Q. What do you mean when you say that the thermal revenue requirement components**  
225 **are unbundled?**

226 A. I mean that the Capacity Charge is only intended to collect revenues associated with the  
227 fixed costs in the delivery revenue requirement and the Energy Charge is only intended to  
228 collect revenues associated with the energy supply revenue requirement. Since these two

229 rate components are unbundled, in subsequent rate applications the delivery revenue  
230 requirement can be addressed in a separate regulatory process from the energy supply  
231 revenue requirement process. This unbundled approach to rate-making promotes  
232 regulatory efficiency. Corix requests in this initial GRC Application that the Commission  
233 approve both the Capacity Charge and the Energy Charge. Corix proposes that, in future  
234 rate requests, changes to the Capacity Charge and the Energy Charge would occur in  
235 separate regulatory processes.

236 *D. Subsequent setting of rates*

237 **Q. Once the Thermal Tariff has been approved, how could subsequent rate change**  
238 **applications unfold?**

239 A. Corix proposes that the Capacity Charge set in this docket would only be modified in a  
240 future general rate case. Corix currently anticipates that its next general rate case would  
241 be filed such that new rates would be effective beginning January 1, 2028.

242 Corix further proposes that the Energy Charge would not be modified in future  
243 general rate case filings. Rather, Corix proposes that the Energy Charge established in  
244 this proceeding would be revised pursuant to filings in a separate dedicated regulatory  
245 process for thermal energy supply pass through costs.

246 Corix anticipates that it would file its first standalone pass-through application on  
247 or around November 1, 2027, which will include the proposed amended Energy Charge,  
248 facilitated by the Energy Cost Reconciliation Account, discussed further below.

249

250

251 **Q. Do you anticipate a transition period from the final order approving Energy Charge**  
252 **rates and then achieving a cadence for subsequent applications ?**

253 A. Yes. The timing of this GRC has been dependent on several factors, including the timing  
254 of the first customer connection, which is currently scheduled to occur on or about  
255 August 1, 2026. Corix has requested the imposition of interim rates, including an interim  
256 Energy Charge, to be effective August 1, 2026. Approval of final rates is expected in late  
257 2026. Corix anticipates that the pass-through application to revise the Energy Charge  
258 could be filed on or about November 1, 2027 to facilitate modifications to the Energy  
259 Charge to go into effect on January 1, 2028.

260 *E. Rate Class*

261 **Q. Please describe the rate class proposed for UCDEU.**

262 A. In this initial rate application, Corix proposes one rate class for thermal energy service  
263 called Rate 1: General Service. Each customer building in the Utah City development  
264 will utilize the system in a substantially similar way and subject to the same rate  
265 levelization plan, therefore, a single rate class is sufficient. There may be differences  
266 between buildings such as floor area where some buildings may be small while others are  
267 larger. These floor area differences between buildings is captured by the Capacity Charge  
268 based on design capacity. The customer capacity requested is the key driver for sizing of  
269 utility infrastructure. A small building with a small design capacity would be paying a  
270 lower monthly bill (lower infrastructure costs to serve) than a larger building with a  
271 higher monthly bill (higher infrastructure costs to serve). In future rate applications, if  
272 Corix determines that certain customer buildings have sufficiently disparate impacts on  
273 system costs such this may require changes in the rate structure or the creation of a

274 different rate class. Corix will propose changes to the rate structure or the creation of  
275 additional rate classes to address any disparate impacts caused by customer building  
276 differences.

277 *F. Thermal Charge Components*

278 **Q. Please describe how the Capacity Charge and the Energy Charge will be billed.**

279 A. The Capacity Charge is a fixed charge based on the design capacity of each building, is  
280 measured in kilowatts (kW), and will be billed monthly.

281 The Energy Charge is a variable charge based on measured monthly usage for  
282 each building, is measured in kilowatt-hours (kWh), and will be billed monthly.

283 **III. REGULATORY FRAMEWORK FOR THERMAL ENERGY SUPPLY COSTS**

284 **AND COST RECOVERY**

285 **Q. Were you responsible for Attachment 1, Section 10 regarding the Regulatory**  
286 **Framework for Thermal Energy Supply Costs and Cost Recovery?**

287 A. Yes.

288 **Q. Why is the proposed regulatory framework for thermal energy supply costs and its**  
289 **cost recovery appropriate for UCDEU?**

290 A. As noted above, Corix proposes that fixed system costs be recovered only through the  
291 Capacity Charge, which will be modified only in general rate case filings, while the  
292 variable energy supply costs will be recovered through the Energy Charge applied to  
293 measured usage, which will be modified in annual pass-through filings. This proposed  
294 regulatory framework decouples the energy supply costs from test year ratemaking. The  
295 energy supply costs are variable costs directly related to the production of thermal energy  
296 service for both heating and cooling. If thermal consumption on the system is higher than

297 forecast, and the unit price stays the same, then the actual energy supply costs would be  
298 higher than the test period. Given the linkage between actual consumption and actual  
299 energy supply costs, it is practical and reasonable to unbundle these costs from the  
300 delivery revenue requirement and also to modify the charges necessary to recover these  
301 energy supply costs in a pass-through proceeding.

302 **Q. Please explain how the Energy Cost Reconciliation Account (ECRA) facilitates this**  
303 **proposed regulatory framework.**

304 A. Corix proposes the creation of the ECRA to facilitate the future filing of applications  
305 seeking to modify the Energy Charge as discussed above. The full details of the ECRA  
306 are outlined in Exhibit 1.0 Thermal Tariff in Section D - Energy Cost Reconciliation  
307 Account. In summary the ECRA deferral account captures the cumulative actual costs of  
308 energy supply and the cumulative actual energy charge revenues received. The ECRA is  
309 the balancing account to ensure on a dollar-for-dollar basis the actual purchased thermal  
310 energy supply costs are recovered in the actual Energy Charge revenues.

311 **Q. How often does Corix anticipate that the Energy Charge will be modified?**

312 A. Corix proposes that the Energy Charge be amended on an approximately annual basis  
313 when the utility files a pass-through application that includes a forecast of energy supply  
314 costs. The Energy Charge would be modified with the goal of zeroing out the ECRA  
315 balance in the filing's 12-month energy supply forecast test period. The ECRA balance  
316 may be in a debit position (costs to be recovered from ratepayers) or a credit position  
317 (funds to be returned to ratepayers). Carrying charges would be applied to the balance,  
318 whether in a debt or a credit position.

319 **Q. When does Corix expect to file the first pass-through application to modify the**  
320 **Energy Charge?**

321 A. Corix proposes to file the pass-through by November 1, 2027 for rates effective January  
322 1, 2028. This means the Energy Charge rates established initially for August 1, 2026  
323 would be applicable from that date to December 31, 2027. When the rates are changed  
324 for January 1, 2028, UCDEU will be aligned with the beginning of the calendar year rate  
325 changes. The Energy Charge would be changed annually in a regulatory process.

326 **Q. Are you aware of any PSC regulated utility that uses the approach proposed for**  
327 **UCDEU regarding energy supply costs?**

328 A. Yes. Enbridge Gas Utah (EGU) has a 191 Account that has an energy balancing account  
329 mechanism. EGU makes annual pass-through filings that modify commodity costs and  
330 cost recovery in its gas rates. The UCDEU proposed approach is conceptually consistent  
331 with the EGU approach with applicable adaptations appropriate for thermal energy.

#### 332 **IV. CALCULATION OF CARRYING CHARGE**

333 **Q. Were you responsible for the Calculation of Carrying Charge in Exhibit 1.0**  
334 **Thermal Tariff, Section C – Standard Fees and Charges Schedule?**

335 A. Yes. Further explanation can be found in Attachment 1, Section 11 regarding the  
336 Calculation of Carrying Charge.

337 **Q. Why is the calculation based on the average daily interest rate for the 12-month**  
338 **preceding period from the Federal Reserve of St. Louis for the ICE BofA BBB US**  
339 **Corporate Index Effective Yield (BAMLC0A4CBBEY)?**

340 A. The selected index reference was based on a number of factors. Including

341 

- Publicly accessible and reliable data

- 342           ▪ Objective actual results
- 343           ▪ A reasonable proxy for a short-term interest rate
- 344           ▪ Easy to implement, calculate, and maintain
- 345           ▪ Similar in approach to Enbridge Gas Utah's calculation of carrying charge

346           The Federal Reserve of St. Louis provides publicly accessible and reliable data that  
347           anyone can review at no cost. Corix's proposal is similar to Enbridge's methodology that  
348           is based on the average annual Aaa and Baa Corporate interest rates for the preceding  
349           calendar year. The index 'ICE BofA BBB US Corporate Index Effective Yield'  
350           (BAMLC0A4CBBBEY) was chosen since it provides a single index that closely  
351           approximates a reasonable short-term interest rate, is simple to calculate, and is  
352           transparent.

353   **Q.    What is the proposed carrying charge rate?**

354   A.    Corix proposes a carrying charge rate of 4.88%. Corix proposes that this rate be effective  
355           as of August 1, 2026 when it expects to begin providing service to the first customer  
356           building in the Utah City development. The spreadsheet calculation is shown in Corix  
357           Exhibit 3.2. It is based on the daily average of the last 12 months from April 1, 2025 to  
358           March 31, 2026.

359   **Q.    When will the carrying charge rate be updated next?**

360   A.    Given the timing of this GRC proceeding. This proposed initial interest rate would be  
361           effective until the next amendment. Corix proposes to file the next updated Carrying  
362           Charge rate by November 1, 2027 for an effective January 1, 2028 date. This means the  
363           initial rate would be effective from August 1, 2026 to December 31, 2027. When the rate

364 is updated for January 1, 2028 the subsequent updates to the carrying charge would be  
365 filed annually on or before November 1 of each year.

366 **V. REGULATORY FRAMEWORK FOR THERMAL DELIVERY COSTS AND**  
367 **COST RECOVERY**

368 **Q. Were you responsible for Attachment 1, Section 12 regarding the Regulatory**  
369 **Framework for Thermal Delivery Costs and Cost Recovery?**

370 A. Yes. Section 12 in Attachment 1 explains the regulatory framework for delivery costs that  
371 utilizes a Revenue Deficiency Deferral Account (RDDA) to levelize rates.

372 **Q. Please describe the Regulatory Framework for Thermal Delivery Costs and Cost**  
373 **Recovery.**

374 A. Corix proposes for UCDEU that the thermal delivery revenue requirements be reviewed  
375 and the Capacity Charge set in general rate case filings once the initial rate has been  
376 established in this GRC Application. The thermal delivery revenue requirements pertain  
377 to the delivery cost of service in a general rate case filing. Given that Corix is proposing a  
378 Revenue Deficiency Deferral Account (RDDA) that stabilizes rates during the long-term  
379 build-out period the setting of the Delivery Charge will include consideration of the  
380 RDDA additions during the earliest years of the utility and the target recovery date of the  
381 RDDA.

382 **Q. Why is the proposed Regulatory Framework for thermal delivery costs and its cost**  
383 **recovery appropriate for UCDEU?**

384 A. The regulatory framework proposed by Corix is appropriate for a greenfield utility with a  
385 continuous build-out schedule. The proposed regulatory framework is based on stabilized

386 rates consistent with the customer's preference. However, it would not be appropriate for  
387 a stable mature utility since the need for stabilized rates is not present.

388 **Q. How is UCDEU's proposed regulatory framework for thermal delivery costs**  
389 **different from a traditional mature utility?**

390 A. In a traditional mature utility the customer base is stable and the annual revenue  
391 requirements are also relatively stable. Given this stability, a general rate case which  
392 relies on this stability can use past results to establish a baseline for forecasting future test  
393 periods, the calculated annual cost of service which yields the annual revenue  
394 requirement is used as the basis for setting rates. In a traditional mature utility the  
395 proposed rates lead to forecasted revenues that equals the forecast test year revenue  
396 requirement. This is appropriate for a stable mature utility where it is expected to manage  
397 is relatively stable costs and revenues approved for the test period.

398 However, UCDEU is not a mature utility, it does not have stable number of  
399 customer connections each year, its rate base grows relatively dramatically as new  
400 customers are connected, and the revenues are dependent on the actual number of  
401 customer connections. The forecasted customer connection drives the annual costs and  
402 revenues. If a customer is expected to connect on November 1<sup>st</sup> in a particular year but  
403 actually connects on January 15<sup>th</sup> in the following year, due to accounting rules and the  
404 nature of the calendar/fiscal year it can have a material impact on costs and revenues  
405 even though the delay is only 2-1/2 months. When a customer connection moves from  
406 one fiscal year to the next fiscal year, the fiscal year results are materially impacted  
407 which affect revenues, rate base, depreciation, and cost of capital.

408 **Q. If UCDEU set its Capacity Charge consistent with its annual cost of service similar**  
409 **to a traditional mature utility, what would the Capacity Charge be and would its**  
410 **rate be stable in subsequent years similar to a mature utility?**

411 A. If UCDEU set its initial rate based on the annual cost of service, the rates to recover that  
412 revenue requirement would be \$58.66/kW/month. Corix proposes a rate mechanism that  
413 sets the initial Capacity Charge at \$15.85/kW/month and keeps that rate stable during the  
414 build-out phase of the Utah City development. These contrasting approaches are set forth  
415 in Figure 1 below. Figure 1 also shows that when using a traditional cost of service  
416 approach to rate-making the unit rate would be above \$20/kW/month from inception in  
417 2026 through to 2031. Setting rates based on traditional cost of service results in highly  
418 unstable rates to the detriment of the customer. The traditional cost of service rate-setting  
419 methodology in these early years would yield rates that are not reflective of the true long-  
420 run cost of thermal energy. The first buildings bear a disproportionate cost of the fixed  
421 costs of the Utility when compared to future buildings. When a greenfield utility is first  
422 constructed the initial capital infrastructure deployed is not only for the first building that  
423 connects but also for other buildings that are also connecting in a short period of time. It  
424 would be unfair to charge the first building for all the annual costs when the  
425 infrastructure is also for the other buildings that are connecting a little later. The  
426 traditional rate-making methodology assumes the annual cost of service is stable and the  
427 customer base is stable. This is not the case for UCDEU. Given UCDEU is a greenfield  
428 utility with a long-term build-out the levelized rate approach is a practical solution to  
429 achieve rate stability while setting rates that match the build-out period.

430 **FIGURE 1 – Levelized and Non-Levelized Capacity Rates**



431  
432 Figure 1 above is a replication of Corix Exhibit 3.3 Levelized and Non-Levelized  
433 Capacity Rates. Corix Exhibit 3.3 shows a larger landscape version of the figure.

434 **Q. Does the implementation of a levelized rate require a deferral account?**

435 A. Yes. Corix proposes a Revenue Deficiency Deferral Account (RDDA) as fully explained  
436 in Attachment 1, Section 12.6. The RDDA is included in Exhibit 1.0 Thermal Tariff in  
437 Section E – Rate Schedule 1: General Service under the heading “Revenue Deficiency  
438 Deferral Account”. The RDDA is required to track the actual revenues to the  
439 actual/allowed costs. The RDDA has a target recovery year of 2041 which is used to  
440 levelize the rates over the given period.

441 **Q. How can the Commission be sure that the RDDA is working appropriately since the  
442 levelization period spans many years?**

443 A. There are a number of factors to ensure the RDDA is working appropriately, they are as  
444 follows:

- 445 ▪ Frequent rate applications. Corix intends to file frequent rate applications during  
446 the build-out period, which will provide regular updates to the Commission

447 regarding actual connected customer buildings and actual costs incurred. In  
448 addition, forecasts of the remaining build-out, including customer connection  
449 timing and costs for the connections, will be updated with each rate case filing.  
450 There will be continuous ongoing reviews to ensure the rates are appropriate as  
451 the build-out of the development progresses.

- 452 ■ The RDDA is subject to a regulatory audit to ensure prudence of expenditures and  
453 adherence to previous PSC orders.
- 454 ■ The RDDA non-controllable and controllable delivery costs can be reviewed by  
455 the Commission in each rate application to ensure the appropriateness of  
456 categorization.
- 457 ■ The RDDA has a threshold check to ensure the balance does not unexpectedly  
458 become very large relative to net plant assets. In Section E of the Thermal Tariff  
459 (Corix Exhibit 1.0), under the sub-heading RDDA Balance Mitigation Measures,  
460 if the forecast RDDA balance in a year exceeds 20% of the forecast plant net  
461 book value of the utility or the RDDA balance is not expected to be fully  
462 recovered by the RDDA full repayment date, then the utility may propose to  
463 request mitigation measures which are all subject to Commission approval. These  
464 mitigation measures ensures that the outstanding RDDA balance has a pathway to  
465 full recovery while at the same time maintaining relative rate stability.

466 **Q. Please elaborate on these RDDA balance mitigation measures regarding the 20% of**  
467 **net book value?**

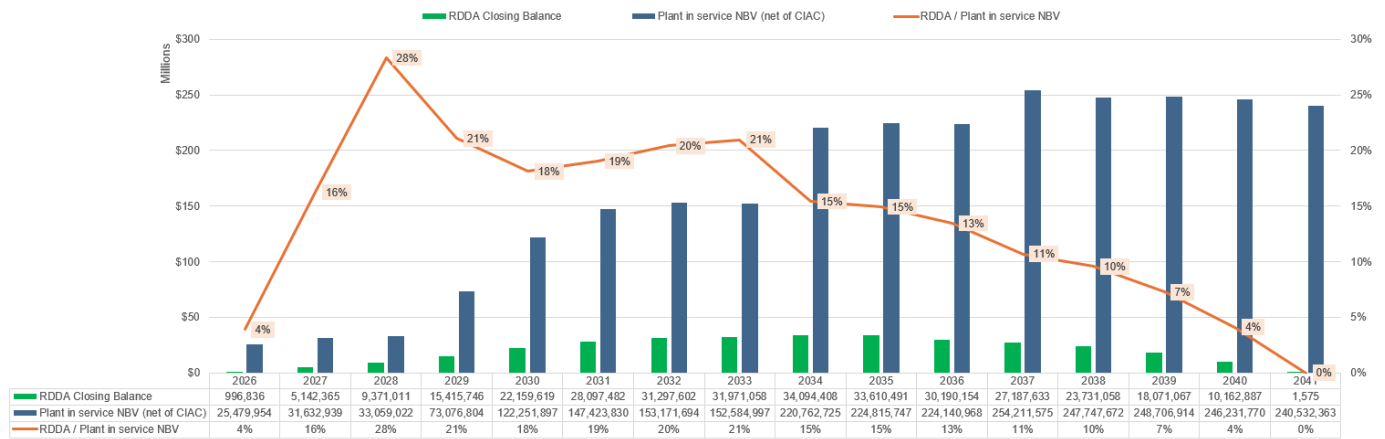
468 A. Given the capital costs and the build-out schedule, Corix and Flagborough agreed in the  
469 negotiated Fee Framework to take a long-term approach to levelized rates. However,

470 since the rate levelization is contingent on the expected capital costs and the build-out  
471 schedule of new customer connections, these forecasts may differ from actual events. If  
472 actual events unfold differently the parties agreed to certain checks to ensure the RDDA  
473 balance does not grow rapidly such that it affects the stability of UCDEU. To this end the  
474 parties agreed for UCDEU to have a 20% threshold calculated as RDDA balance to net  
475 book value of plant. If the percentage is above 20% Corix has the ability to request  
476 certain mitigation measures be taken. Any mitigation measure would need to be approved  
477 by the Commission.

478 Figure 2 below shows that in 2028 the figure is temporarily at 28% then declines  
479 to 21% in the near term. Commencing in 2034 the percentage consistently stays below  
480 20% until the RDDA is fully recovered in 2040. Given the forecast, the RDDA does not  
481 show a trend where the percentage remains above 20% with a risk of becoming too large  
482 relative to plant balances. Given this forecast the proposed levelized rate is reasonable to  
483 achieve a target RDDA recovery date of 2041. If the forecast percentages show a  
484 persistent long-term RDDA percentage above 20% then Corix has the ability to propose  
485 mitigation measures to bring down the RDDA balance to a more reasonable level.

486

**FIGURE 2 – RDDA Balance Relative to NBV**



487

488

Figure 2 above is a replication of Corix Exhibit 3.4. Corix Exhibit 3.4 shows a larger landscape version of the figure.

489

490

**Q. How is an approved Revenue Deficiency Deferral Account (RDDA) reflected in the financial statements of the utility?**

491

492

**A.** If an entity qualifies as a regulated operation and receives assurance from the regulator of a deferral account where rates are designed to recover the specific entity’s costs of providing the regulated services, then the entity may establish a regulatory asset.

493

494

495

Attachment 1, Section 25.8 explains this issue in more detail. The proposed RDDA for UCDEU is a deferred recovery plan permitted under ASC 980. This deferred recovery plan is in response to the high initial greenfield utility calculated costs in the early years

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of the build-out to allow for rate stabilization which is consistent with Bonbright’s rate stability principle. The RDDA ensures that there is a cause-effect relationship between

499

500

the utility’s costs and its revenues over a long-term period rather than simply over a strict 12-month period. The RDDA once approved by the PSC is recognized under U.S. GAAP

501

502

and becomes a regulatory asset in the financial statements of the utility.



526 **Q. Does the RDDA and its rate levelization objective achieve cost-based rates?**

527 A. Yes. The RDDA ensures that the rates and actual revenues paid by ratepayers recover the  
528 actual allowed costs of the thermal utility over its build-out period.

529 **Q. If there were no RDDA and no rate levelization would that achieve stabilized cost-**  
530 **based rates for a greenfield utility with a long-term build-out?**

531 A. No. It doesn't for a few reasons.

532       ▪ The first reason is that the calculated unit cost goes down each year as new  
533 customer buildings are added. Traditional cost-based rates set in year 3 (e.g.  
534 2028) bears no resemblance to the traditional cost-based rates set in year 2 (e.g.  
535 2027) because the traditional cost-based rates methodology assumes a stable  
536 mature utility. UCDEU is not mature and is not stable.

537       ▪ The second reason is that when a greenfield utility is created with a long-term  
538 build-out any historical approach to rate-setting is highly inappropriate because  
539 past revenue requirements provide no indication of future revenue requirements  
540 when total customer count and rate base grows significantly each year.

541       ▪ The third reason is because traditional cost-based rates assume when a revenue  
542 requirement is set there is a reasonable and high likelihood that the test year  
543 revenues and costs resemble actual revenues and costs. This is not the case for a  
544 greenfield utility that continuously adds customer connections based on the  
545 developer's ability to construct and complete its buildings according to plan. If  
546 the developer slows down (due to general market slowdown) then this action  
547 significantly affects the utility's actual revenues and actual costs if buildings  
548 connect later than anticipated. In a mature utility the large customer base and



572 A. As discussed in Attachment 1, Section 10.6 Corix proposes the creation of the Energy  
573 Cost Reconciliation Account (ECRA) that implements the pass-through proceedings for  
574 recovery of variable energy costs. The ECRA is a non-rate base deferral account that is a  
575 part of the energy supply revenue requirement.

576 **VIII. OTHER MATTERS – ANNUAL REPORTS**

577 **Q. Were you responsible for Attachment 1, Section 30 regarding Other Matters –**  
578 **Annual Reports?**

579 A. Yes.

580 **Q. How could a heat corporation annual report be developed for use in Utah?**

581 A. The challenge with a utility filing annual reports in Utah is that the annual report is based  
582 on the approved Uniform System of Accounts. For example, a gas utility in Utah would  
583 follow the FERC Natural Gas Uniform System of Accounts as the basis to report the  
584 financial results. Since there is no approved Thermal Uniform System of Accounts an  
585 annual report for a heat corporation cannot be fully completed until there is an approved  
586 system of accounts. Prior to an approved system of accounts, the heat corporation annual  
587 report could be still filed for overall financial results without specific account coding  
588 until there is an approved Thermal Uniform System of Accounts.

589 **I. OTHER MATTERS – THERMAL UNIFORM SYSTEM OF ACCOUNTS**

590 **Q. Were you responsible for Attachment 1, Section 29 regarding Other Matters –**  
591 **Thermal Uniform System of Accounts?**

592 A. Yes.

593

594

595 **Q. Is there a recognized uniform system of accounts for thermal energy systems?**

596 A. No. Unlike the uniform system of accounts approved by the Federal Energy Regulatory  
597 Commission (FERC) for gas and electric utilities, there is no standardized system of  
598 accounts for thermal energy utilities like UCDEU.

599 **Q. Could a Thermal Uniform System of Accounts be developed for use in Utah?**

600 A. Yes, and Corix proposes that such a uniform system of accounts be developed for heat  
601 corporations operating in Utah. Development of a standardized system of accounts for  
602 heat corporations would best be achieved in a working group where Corix can work  
603 collaboratively with the DPU and OCS. Corix proposes that the Commission establish a  
604 working group to address that task.

605 **II. CONCLUSION**

606 **Q. Please summarize your testimony.**

607 A. In this testimony I have addressed matters regarding rate design, regulatory framework for  
608 thermal energy supply costs and cost recovery, calculation of carrying charge, regulatory  
609 framework for thermal delivery costs and cost recovery, rate stabilization with Revenue  
610 Deficiency Deferral Account, deferral accounts, Thermal Uniform System of Accounts,  
611 and Annual Reports.

612 I recommend the Commission approve a two-part rate structure composed of a  
613 Capacity Charge and an Energy Charge for thermal energy service. I also recommend that  
614 the Commission approve the proposed regulatory frameworks for thermal energy supply  
615 costs and the thermal delivery costs with the two requested deferral accounts—the ECRA  
616 and the RDDA--to implement the regulatory frameworks. In addition, I recommend  
617 approval of a long-term rate stabilization approach for UCDEU's delivery rates through

618 the proposed RDDA. I also recommend the Commission approve the Carrying Charge  
619 interest rate, its methodology, and how it is updated. Lastly, I also recommend that the  
620 Commission in its decision on the GRC Application direct Corix participate in working  
621 groups that further the development of the Thermal Uniform System of Accounts and  
622 Annual Reports for a heat corporation.

623 **Q. Does this conclude your testimony?**

624 **A. Yes.**