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Michael J. Schmitt
Chairman

Kent A. Chandler
Vice Chairman

Talina R. Mathews
Commissioner

August 28, 2020

PARTIES OF RECORD

Re: Case No. 2020-00016

Attached is a copy of a memorandum, which is being filed in the record of the above-referenced case. If you have any comments you would like to make regarding the contents of the memorandum, please do so within five days of receipt of this letter.

If you have any questions, please contact Nancy Vinsel, Assistant General Counsel at 502-782-2582.

Sincerely,

A handwritten signature in blue ink, appearing to read "K. Chandler", written over a blue horizontal line.

Kent A. Chandler
Acting Executive Director

njv

Attachment

INTRA-AGENCY MEMORANDUM

KENTUCKY PUBLIC SERVICE COMMISSION


TO: Case File No. 2020-00016

FROM: Nancy J. Vinsel, Assistant General Counsel

DATE: August 25, 2020

RE: Informal Conference of August 25, 2020

An informal conference (IC) was conducted by videoconference on August 25, 2020. Attached is a copy of the sign in sheet.

The purpose of the IC was to discuss the methodology to be applied during the Fuel Adjustment Clause (FAC) biennial review for the portion of a purchased power agreement (PPA) assigned to native load. Representatives of Louisville Gas and Electric Company (LG&E) and Kentucky Utilities Company (KU) (jointly, LG&E/KU) made a PowerPoint presentation, discussing historical FAC methodologies, explaining their position that After-the-Fact Billing was an accounting treatment and not applicable **for a with and without PPA analysis to determine economics a review of economy purchases in an FAC review**, and proposing an alternative **using AFB to determine economics in an FAC review** set forth in the attached presentation. 

Commission Staff, the Attorney General of the Commonwealth of Kentucky, by and through the Office of Rate Intervention (Attorney General), and representatives of LG&E/KU discussed the next steps in processing this proceeding. The parties and Staff agreed that the procedural schedule should remain in abeyance at this time. LG&E/KU will file direct testimony in support of their proposed methodology. Staff will discuss holding a formal conference with the Commissioners and report back to the parties.

There being no further discussion, the IC was then adjourned.

cc: Parties of Record

Attachment

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

ELECTRONIC APPLICATION OF LOUISVILLE GAS)	
AND ELECTRIC COMPANY AND KENTUCKY)	CASE NO.
UTILITIES COMPANY FOR APPROVAL OF A)	2020-00016
SOLAR POWER CONTRACT AND TWO)	
RENEWABLE POWER AGREEMENTS TO)	
SATISFY CUSTOMER REQUESTS FOR A)	
RENEWABLE ENERGY SOURCE UNDER GREEN)	
TARIFF OPTION #3)	

August 25, 2020

Please sign in:

NAME	REPRESENTING
Nancy Vinsel	PSC – Legal
JEB Pinney	PSC – Legal
Tina Frederick	PSC – Legal
Mary Beth Purvis	PSC – FA
Mary Whitaker	PSC – FA
John Rogness	PSC – FA
Daniel Hinton	PSC – FA
Keegan Arnold	PSC – FA
Mike Foley	PSC - FA
Kendrick Riggs	LG&E/KU
Allyson Sturgeon	LG&E/KU
Robert Conroy	LG&E/KU

Lonnie Bellar

LG&E/KU

Stuart Wilson

LG&E/KU

John Horne

Attorney General

Michael West

Attorney General

Larry Cook

Attorney General

*Honorable Allyson K Sturgeon
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220 West Main Street
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*Kentucky Utilities Company
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P. O. Box 32010
Louisville, KY 40232-2010

*John Horne
Office of the Attorney General Office of Rate
700 Capitol Avenue
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Frankfort, KENTUCKY 40601-8204

*Louisville Gas and Electric Company
220 W. Main Street
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Louisville, KY 40232-2010

*Honorable Kendrick R Riggs
Attorney at Law
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*Larry Cook
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*J. Michael West
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*Rick E Lovekamp
Manager - Regulatory Affairs
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220 West Main Street
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*Robert Conroy
Vice President, State Regulation and Rates
LG&E and KU Energy LLC
220 West Main Street
Louisville, KENTUCKY 40202

Case No. 2020-00016 Informal Conference After-the-Fact Billing Process / Solar PPA



August 25, 2020



Agenda for Informal Conference

1. Clarification of language in Orders for common understanding
2. Discussion of the After-the-Fact Billing (“AFB”) process and how it is used in the Fuel Adjustment Clause (“FAC”) filings
3. Discussion of the methodology to be applied during the FAC to assess Solar PPA energy economics
 - a) Highest Cost Unit methodology raised in request for rehearing
 - b) At bottom of stack and displacing the equivalent highest cost resource as proposed in application

1. Clarification of language in Orders for common understanding

Language in May 8, 2020 Order

Commission Language

“[T]he Commission finds that the economics of the energy purchases under the PPA, net of REC sales, should be reviewed over the entirety of a 2-year FAC review. For instance, LG&E/KU should perform their AFB process both with and without the energy purchases from the instant PPA over the entire 2-year FAC review, net of REC sales, to determine the reasonableness of the incurrence and recovery of the costs expended. LG&E/KU will be permitted to net the gains and losses from their purchases under the instant PPA, net of REC sales, over the entirety of the 2-year review periods.”

Interpretation

- Commission did not deem PPA prudent under KRS278.020 or KRS 278.300; will use FAC 2-year review period as forum to do that.
- Desire to use AFB process
- Net economic benefits of PPA over review period go to customers; any net economic cost will be scrutinized during 2-year review

Language in June 2, 2020 Order on Rehearing

Commission Language

“the Commission will investigate how placing energy arising under the PPA at the ‘bottom of the generation dispatch stack through the . . . AFB process thus pushing all other resources higher in the stack and displacing the equivalent highest cost resources’ is representative of the actual economics and how this process will provide the Commission any actionable information whether the PPA purchases are economic.”

Interpretation

- There is a need for an agreement on how the proposed transaction will be incorporated into the AFB process

Language in June 2, 2020 Order on Rehearing

Commission Language

“ The Commission’s position on the economics and recovery of the energy arising from the PPA allocated to native load is that the PPA energy is not economic if, on a net basis, it is displacing cheaper electricity, and thus will not be recoverable for that review period absent some other compelling reason.”

Interpretation

- An agreement should be reached on how AFB can be utilized to determine recoverability of the proposed transaction

Language in June 2, 2020 Order on Rehearing

Commission Language

“LG&E/KU is on notice that the Commission will depend on the actual economics of the energy arising under the PPA, net of actual REC sales, to determine the appropriateness of cost recovery from native customers.”

Interpretation

- Cost recovery will be determined by the actual net cost of the transaction not a prudence view based on information known at the time of contract execution

2. Discussion of the After-the-Fact Billing (“AFB”) process and how it is used in the Fuel Adjustment Clause (“FAC”) filings

History – After-the-Fact Billing

1. Principal benefit of LG&E/KU merger was joint integration of two generation systems
2. Computer program developed in 1998 at the time of LG&E/KU merger
 - Developed to implement the provisions of the Power Supply System Agreement
 - Accounts for the Joint Dispatch of the Generation Systems
 - Used to determine:
 - Split savings for Intra-Company Transaction
 - Identification of highest cost for off-system sales
3. Detailed discussion with KPSC on AFB
 - Case Nos. 2000-00497-A and 2000-00498-A
 - Hearing on September 4, 2001 requested detailed data for three selected hours
 - Informal conference held with Commission staff and KIUC on October 31, 2001 at LG&E/KU offices
 - Case Nos. 2014-00452 and 2014-00453
 - Informal conference held with Commission staff on March 26, 2015
4. AFB has operated the same since the LG&E/KU merger with AFB results included in every FAC monthly report

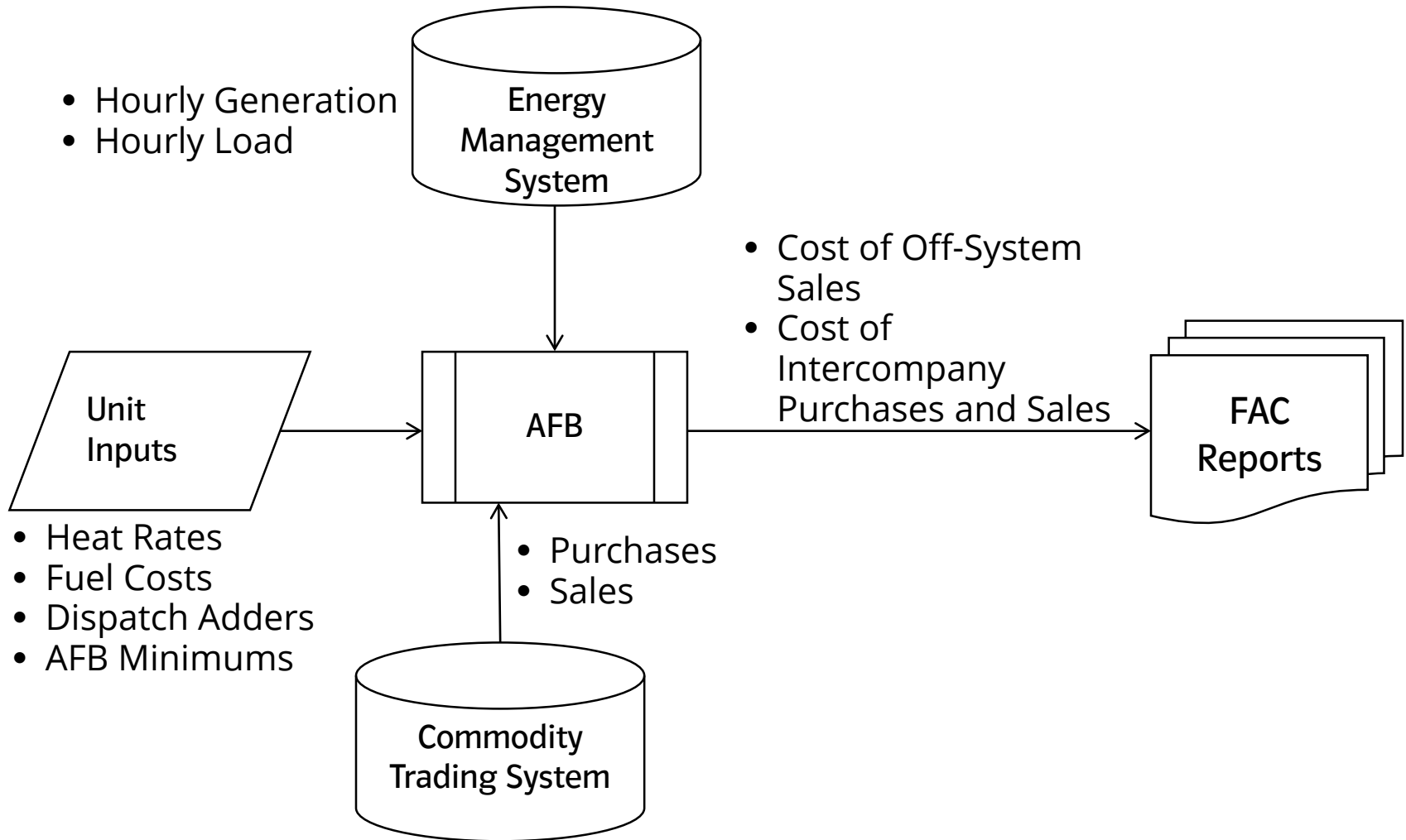
After-the-Fact Billing Overview

1. AFB provides basis for inputs on FAC Form A for each expense month
 - Intercompany transactions
 - Fuel cost assigned to Off-system sales for FAC exclusion
2. AFB does not provide a basis for determining the cost to *serve* native load customers
 - FAC monthly Form A calculations represents the costs *billed* to native load customers
3. On first business day of each month, AFB process is performed for prior expense month using actual data
 - Processes hourly data one hour at a time
 - Stack all sources, both generation and purchase, from lowest incremental cost to highest on a MW by MW basis
 - Lowest owned generation is allocated to serve own native load
 - Min Blocks of units stack to native load

After-the-Fact Billing Overview

1. AFB is not a dispatch or unit commitment program
 - Energy from the Solar PPA is “as-available” energy versus the generation system that must remain ready to incrementally generate at a moment’s notice if solar energy is not available
 - Dispatch of resources balances actual load as it occurs
2. AFB is an accounting process using actual data on how the generating system was dispatched
3. AFB cannot be processed with and without the Solar PPA energy
 - Would create an imbalance between generation and load from an accounting perspective

AFB Process Flowchart



3. Discussion of the methodology to be applied during the FAC to assess Solar PPA energy economics

a) Highest Cost Unit Methodology - Rehearing Request

1. Used for over 18 years by the Commission to address FAC regulation's treatment of economy energy purchases and non-economy power purchases in monthly FAC filings.
 - Economy energy purchases recoverable through the FAC are "purchases that an electric utility makes to serve native load, that displace its higher cost of generation, and that have an energy cost less than the avoided variable generation cost of the utility's highest cost generating unit available to serve native load during that FAC expense month."
 - Non-economy purchases are "purchases made to serve native load that have an energy cost greater than the avoided variable cost of the utility's highest cost generating unit available to serve native load during the FAC expense month."
2. Issue: Is this a methodology that meets the objective expressed in the June 2, 2020 Order?

b) Approach to determine Economics using AFB process

1. Solar PPA Energy remains at the bottom of the AFB stack for monthly FAC Form A filings
 - Monthly FAC filings include the energy cost of the PPA net of REC sales revenue
2. Economics determined over the two-year review period by comparing:
 - The sum of:
 - highest unit cost in the AFB stack applied to the solar volumes in the hours when
 - Solar PPA energy received (i.e. displaced generation);
 - To the sum of:
 - Solar PPA energy costs less REC sales revenue
 - In two-year review proceedings, if sum of Solar PPA energy costs less REC sales revenue is higher than sum of highest cost generation, the difference is uneconomic and excluded from FAC upon completion of two-year review proceeding
3. The accumulation of each two-year review period economic or uneconomic value will be addressed at each successive two-year review, and ultimately at the end of the 20-year life of the PPA
4. Process ensures native load customers will pay no more for energy than they would have paid absent the Solar PPA

Example Calculations of Economics

Benefit/(cost) of energy displaced by 25 MW of solar PPA (\$000)					
			Nov 2020 to Oct 2022		
Example 1	REC Price =		\$5		
	Monthly FAC recovery				
	Solar PPA energy cost		1,383	}	Monthly FAC filings include the energy cost of the PPA net of REC sales revenue
	REC sales revenue		(249)		
	Customer collections		1,134		

Example Calculations of Economics

Benefit/(cost) of energy displaced by 25 MW of solar PPA (\$000)					
			Nov 2020 to Oct 2022		
Example 1	REC Price =		\$5		
	Monthly FAC recovery				
	Solar PPA energy cost		1,383		
	REC sales revenue		(249)		
	Customer collections		1,134		
	2-year Displaced energy cost		887		
	Net period benefit/(cost)		(247)		

The sum of Solar PPA energy costs less REC sales revenue for the review period

The sum of highest hourly unit cost in the AFB stack applied to solar volumes for the review period

Measure of Economics or Un-Economics for the review period

Example Calculations of Economics

Benefit/(cost) of energy displaced by 25 MW of solar PPA (\$000)			
			Nov 2020 to Oct 2022
Example 1	REC Price =		\$5
Monthly FAC recovery			
	Solar PPA energy cost		1,383
	REC sales revenue		(249)
	Customer collections		1,134
2-year Displaced energy cost			887
Net period benefit/(cost)			(247)
Period (returned)/collected			(247)
Cumulative Economics			(247)

Un-Economic value for the review period returned to customers

Accumulated benefits/(cost) for review over the 20-year period

Example Calculations of Economics

Benefit/(cost) of energy displaced by 25 MW of solar PPA (\$000)					
			Nov 2020 to Oct 2022	Nov 2022 to Oct 2024	
Example 1	REC Price =		\$5	\$5	
Monthly FAC recovery					
	Solar PPA energy cost		1,383	3,114	
	REC sales revenue		(249)	(560)	
	Customer collections		1,134	2,554	
2-year Displaced energy cost			887	2,660	
Net period benefit/(cost)			(247)	106	
Period (returned)/collected			(247)	106	
Cumulative Economics			(247)	(141)	

This review period shows customers received a benefit through the Monthly FAC

Company collects a portion of the value returned to customers in prior review period

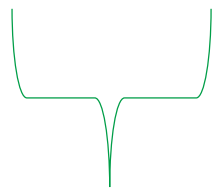
Process continues for next two-year review period

Example Calculations of Economics

Benefit/(cost) of energy displaced by 25 MW of solar PPA (\$000)					
			Nov 2020 to Oct 2022	Nov 2022 to Oct 2024	Nov 2024 to Oct 2026
Example 1	REC Price =		\$5	\$5	\$5
Monthly FAC recovery					
	Solar PPA energy cost		1,383	3,114	3,147
	REC sales revenue		(249)	(560)	(566)
	Customer collections		1,134	2,554	2,582
2-year Displaced energy cost			887	2,660	2,853
Net period benefit/(cost)			(247)	106	271
Period (returned)/collected			(247)	106	141
Cumulative Economics			(247)	(141)	130

This review period shows customers received a benefit through the Monthly FAC

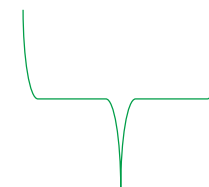
Company collects a portion of the value returned to customers in prior review period



Process continues for next two-year review period

Example Calculations of Economics

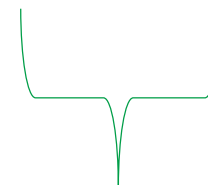
Benefit/(cost) of energy displaced by 25 MW of solar PPA (\$000)						
			Nov 2020 to Oct 2022	Nov 2022 to Oct 2024	Nov 2024 to Oct 2026	Nov 2026 to Oct 2028
Example 1	REC Price =		\$5	\$5	\$5	\$5
Monthly FAC recovery						
	Solar PPA energy cost		1,383	3,114	3,147	3,097
	REC sales revenue		(249)	(560)	(566)	(557)
	Customer collections		1,134	2,554	2,582	2,540
2-year Displaced energy cost			887	2,660	2,853	2,896
Net period benefit/(cost)			(247)	106	271	356
Period (returned)/collected			(247)	106	141	-
Cumulative Economics			(247)	(141)	130	486



Process continues for next two-year review period

Example Calculations of Economics

Benefit/(cost) of energy displaced by 25 MW of solar PPA (\$000)							
			Nov 2020 to Oct 2022	Nov 2022 to Oct 2024	Nov 2024 to Oct 2026	Nov 2026 to Oct 2028	Nov 2028 to Oct 2030
Example 1	REC Price =		\$5	\$5	\$5	\$5	\$5
Monthly FAC recovery							
	Solar PPA energy cost		1,383	3,114	3,147	3,097	3,089
	REC sales revenue		(249)	(560)	(566)	(557)	(555)
	Customer collections		1,134	2,554	2,582	2,540	2,534
2-year Displaced energy cost			887	2,660	2,853	2,896	2,999
Net period benefit/(cost)			(247)	106	271	356	465
Period (returned)/collected			(247)	106	141	-	-
Cumulative Economics			(247)	(141)	130	486	951



Process continues for next two-year review period

Example Calculations of Economics

Benefit/(cost) of energy displaced by 25 MW of solar PPA (\$000)							
			Nov 2020 to Oct 2022	Nov 2022 to Oct 2024	Nov 2024 to Oct 2026	Nov 2026 to Oct 2028	Nov 2028 to Oct 2030
Example 2	REC Price =		\$0	\$0	\$0	\$0	\$0
Monthly FAC recovery							
	Solar PPA energy cost		1,383	3,114	3,147	3,097	3,089
	REC sales revenue		-	-	-	-	-
	Customer collections		1,383	3,114	3,147	3,097	3,089
2-year Displaced energy cost			887	2,660	2,853	2,896	2,999
Net period benefit/(cost)			(496)	(454)	(294)	(201)	(90)
Period (returned)/collected			(496)	(454)	(294)	(201)	(90)
Cumulative Economics			(496)	(950)	(1,244)	(1,445)	(1,535)

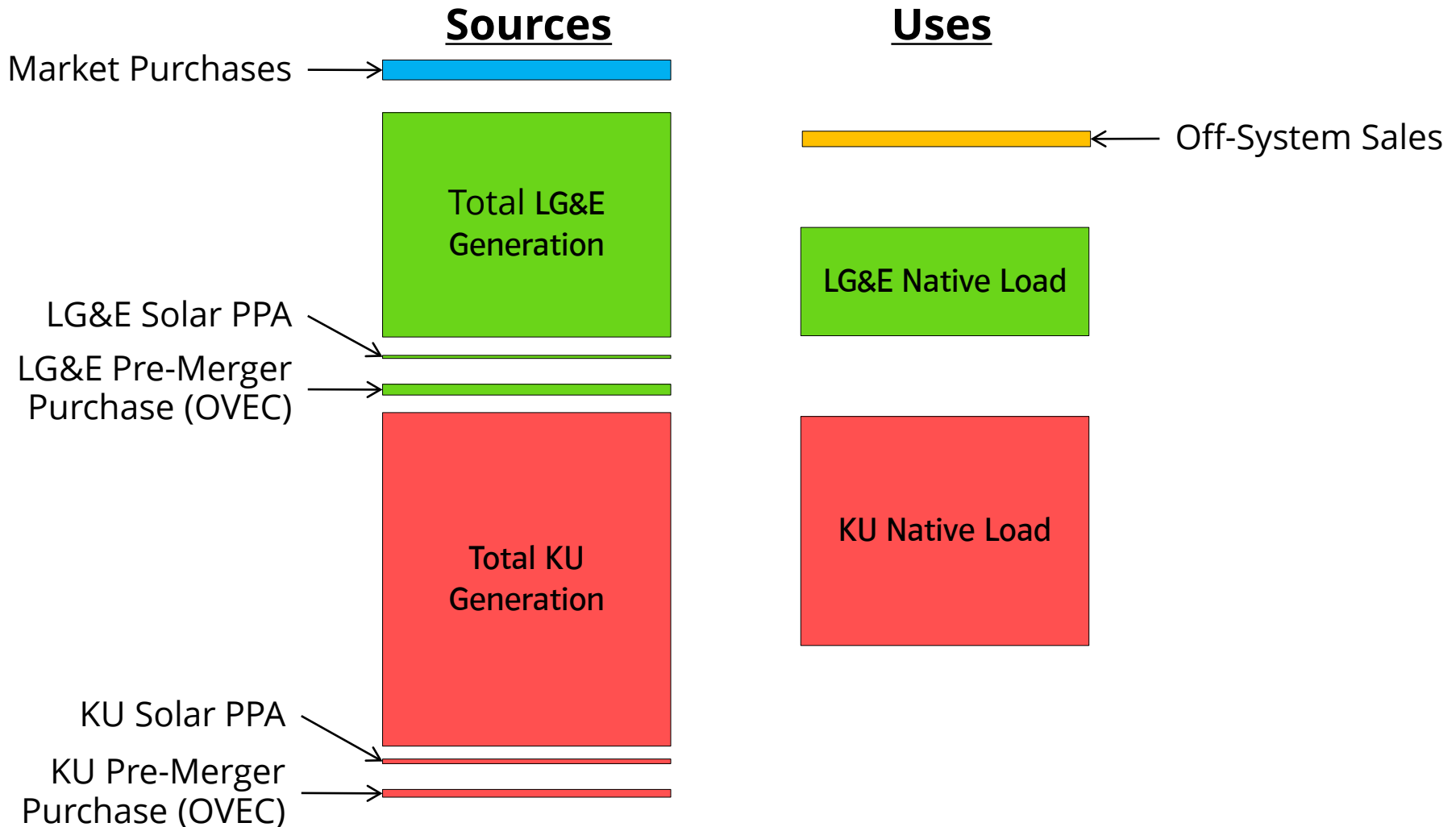
Example with zero REC Price shows customers would only pay the cost of the displaced energy

Closing Discussion

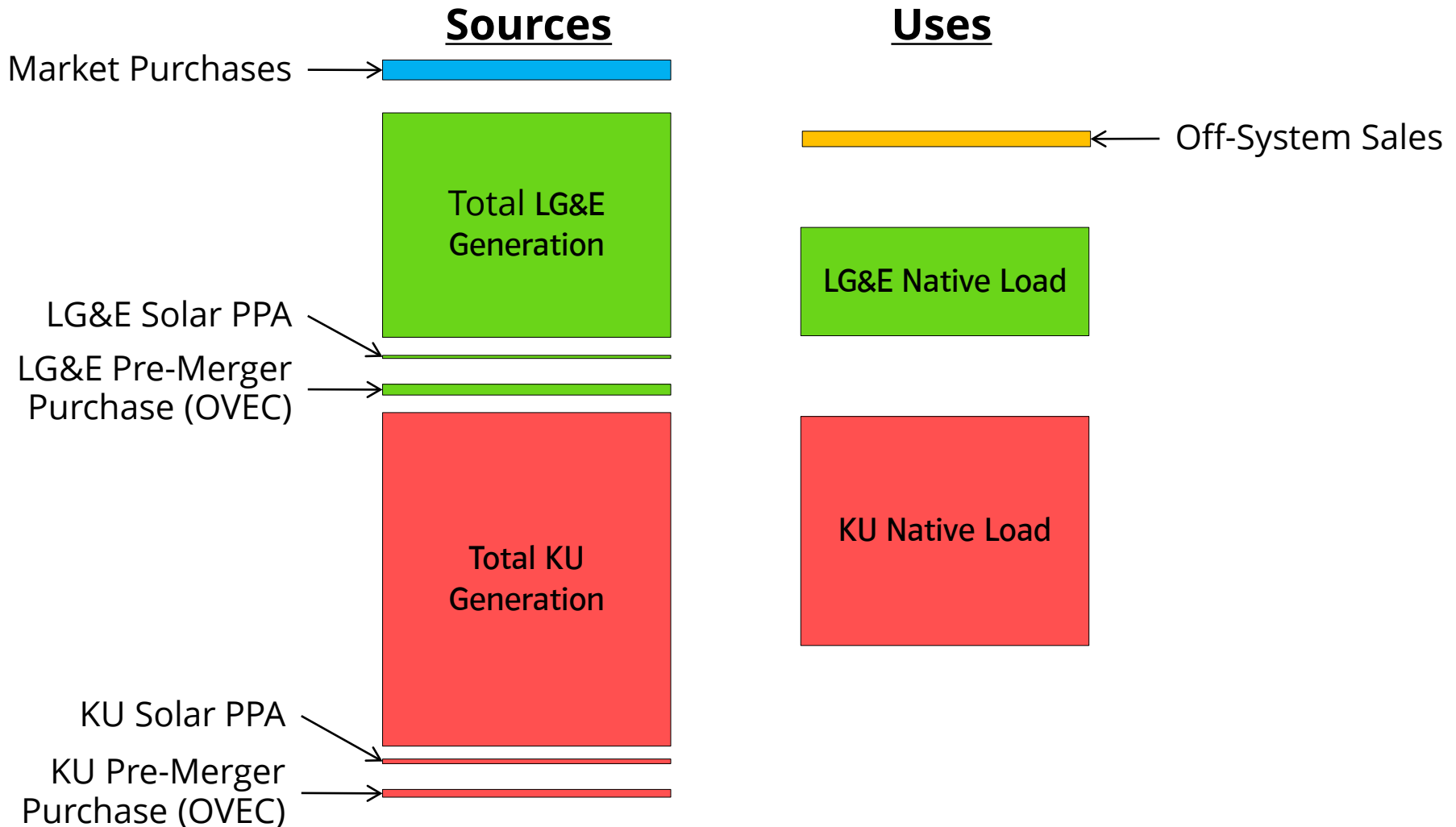
- Approach to determine Economics using AFB process:
 - Meets the objectives of the Commission Orders
 - Provides clarity to the Companies to move forward with the PPA
- Questions?
- Next Steps?

Appendix – Detailed AFB Process

AFB Sources and Uses



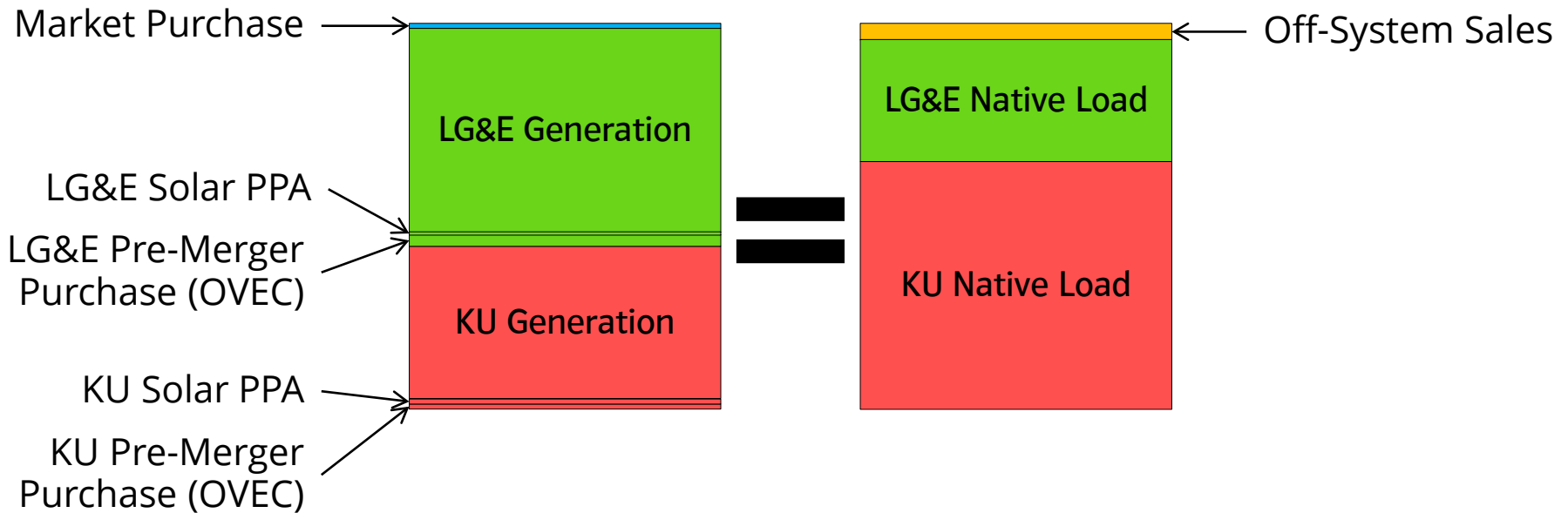
LG&E and KU jointly dispatch their generating units to serve load



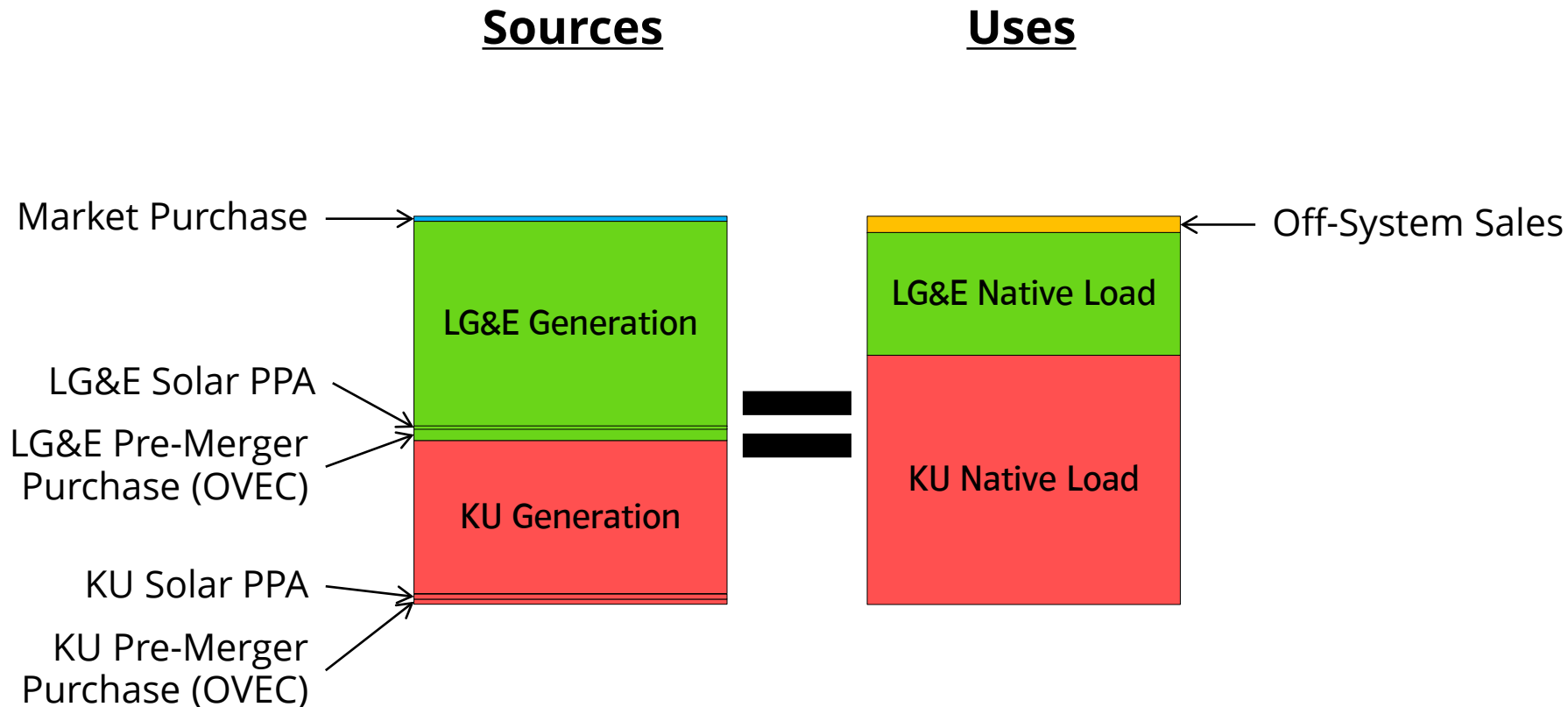
LG&E and KU jointly dispatch their generating units to serve load

Sources

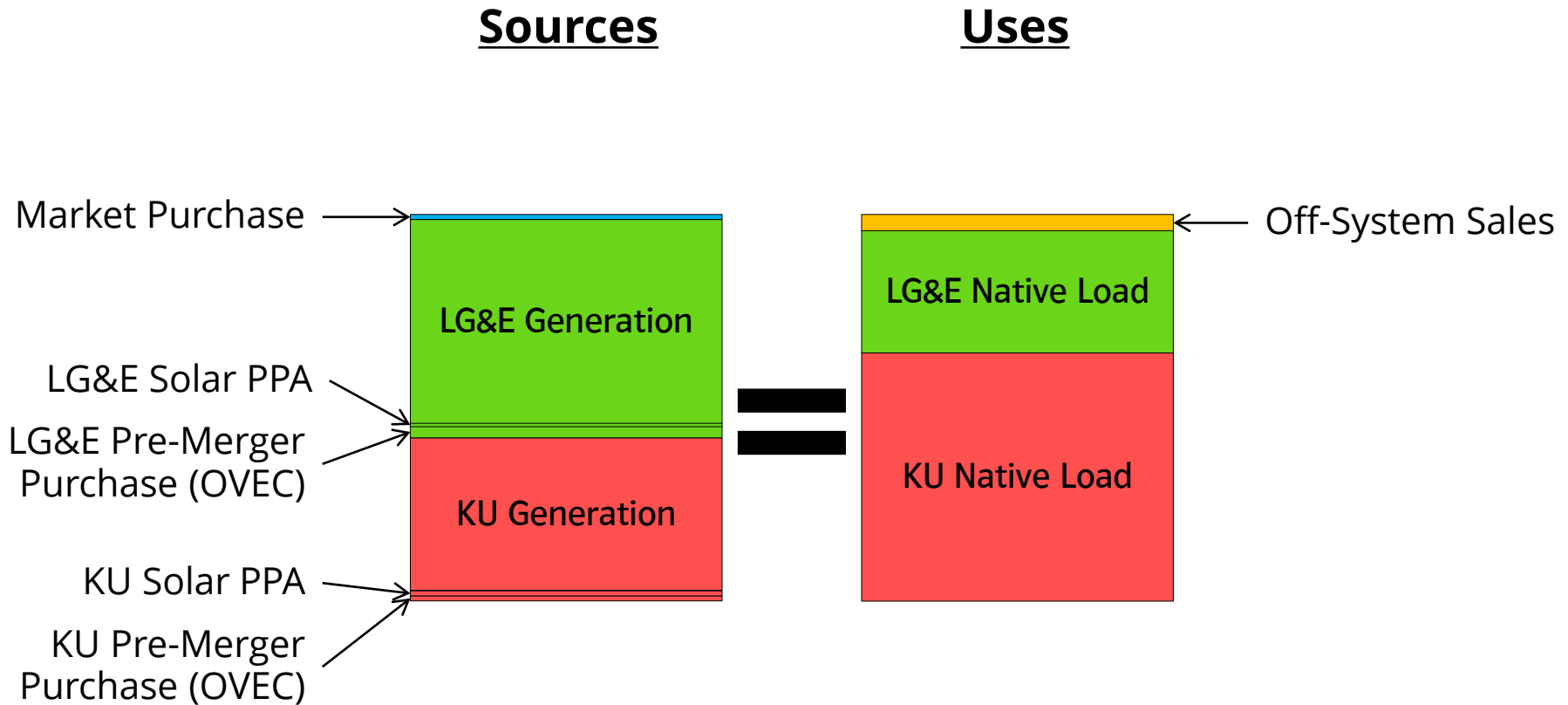
Uses



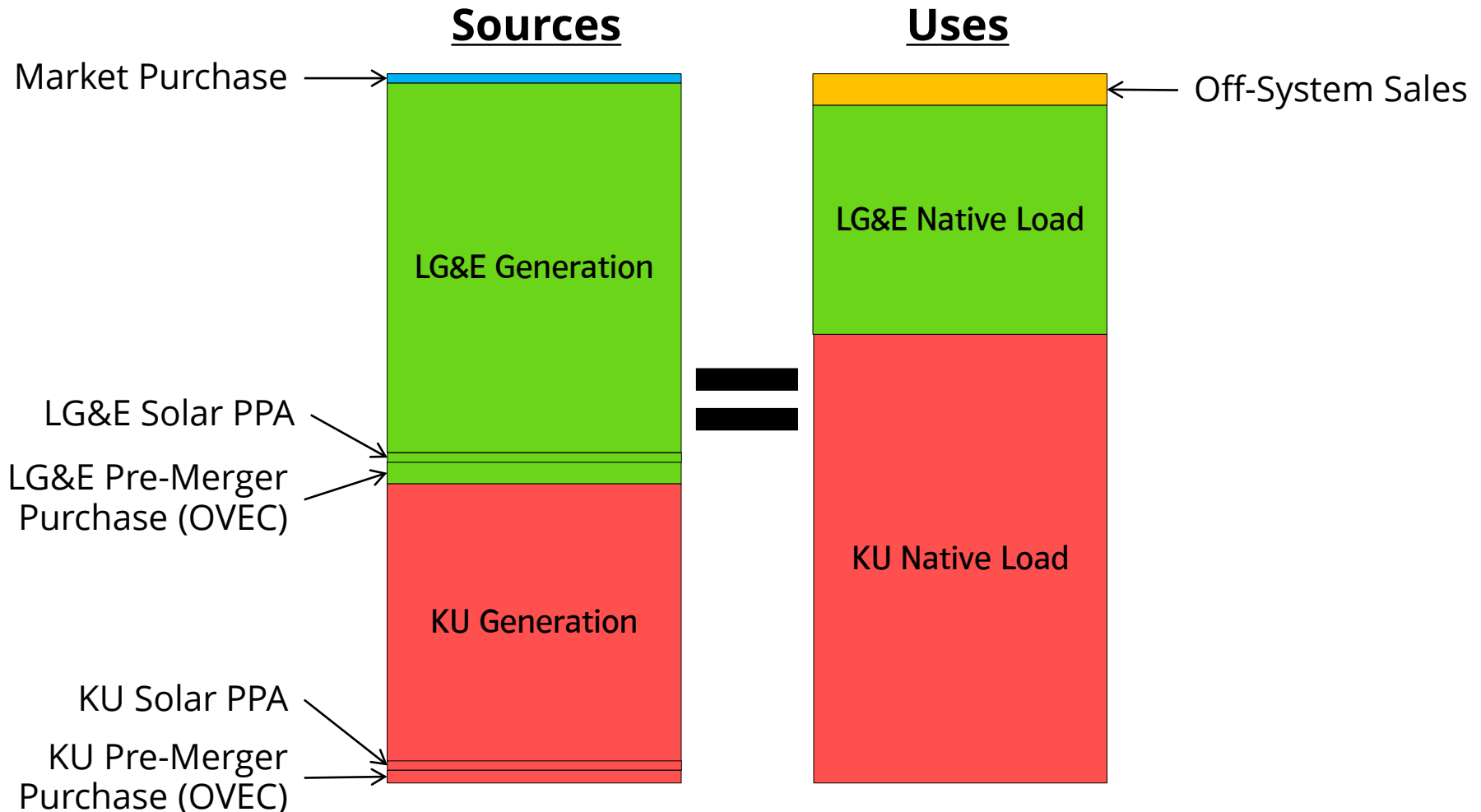
AFB assigns LG&E/KU source MWs to LG&E/KU uses



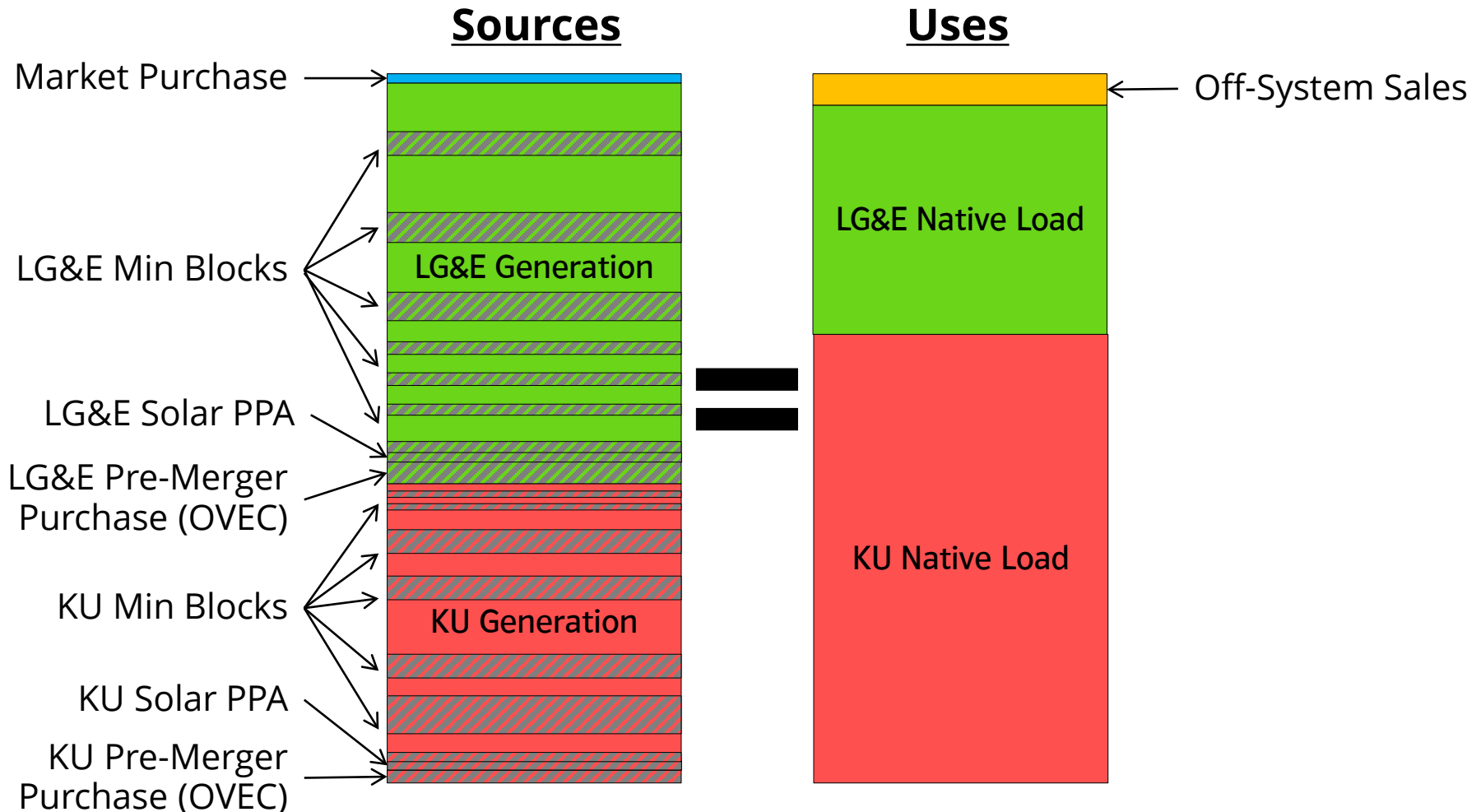
Part 1: Assign premerger purchases, AFB Min Blocks and Solar PPA to each company's native load



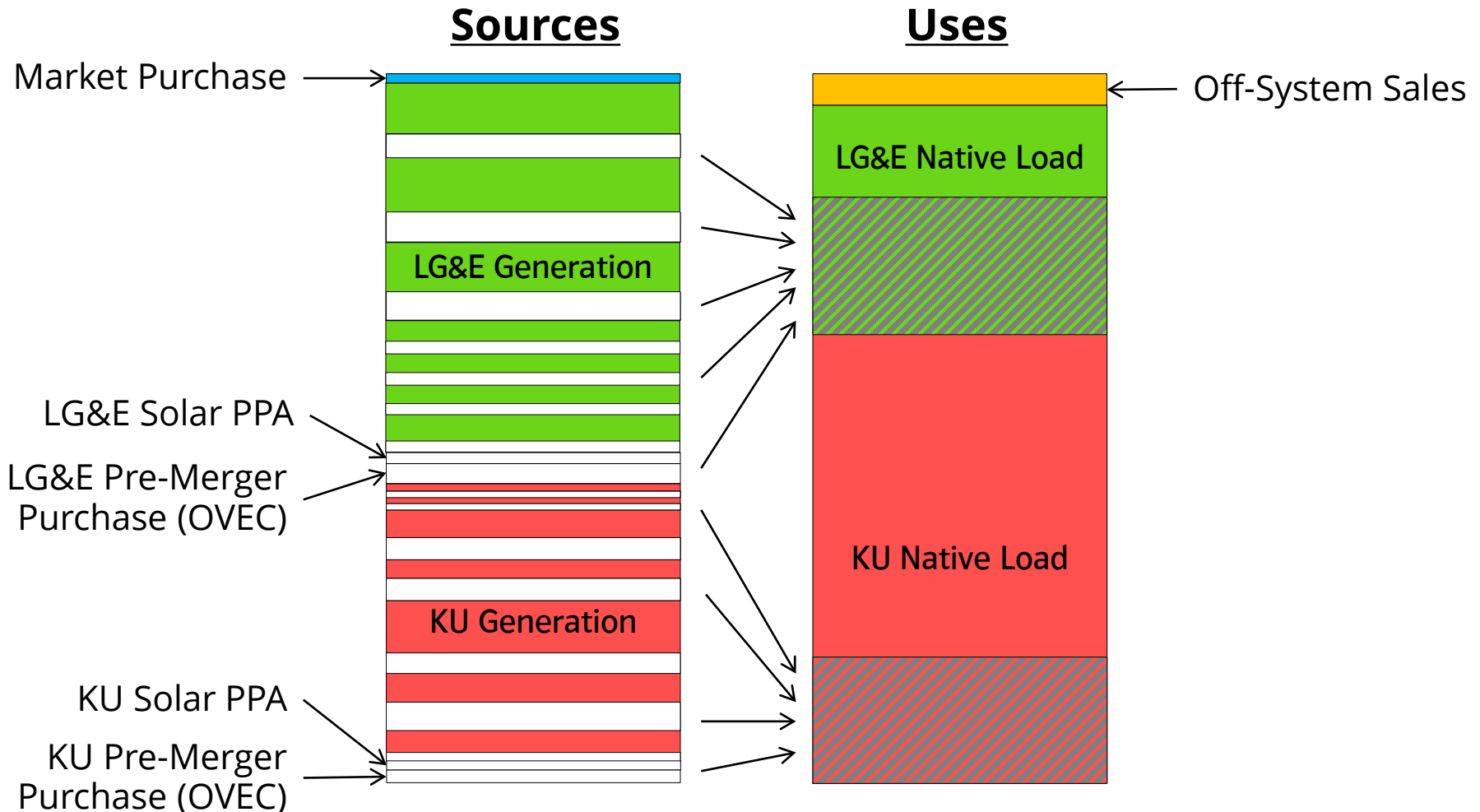
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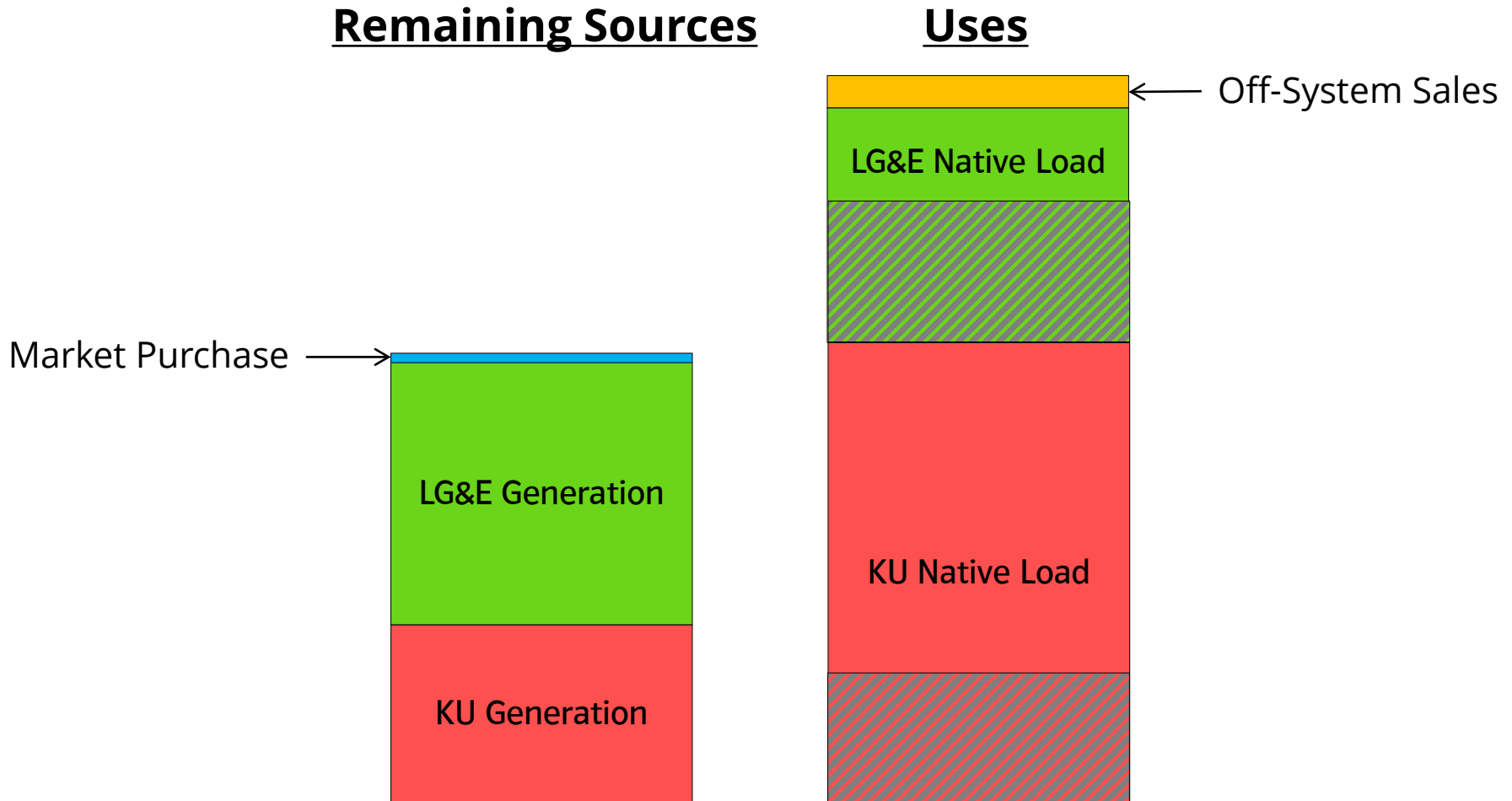
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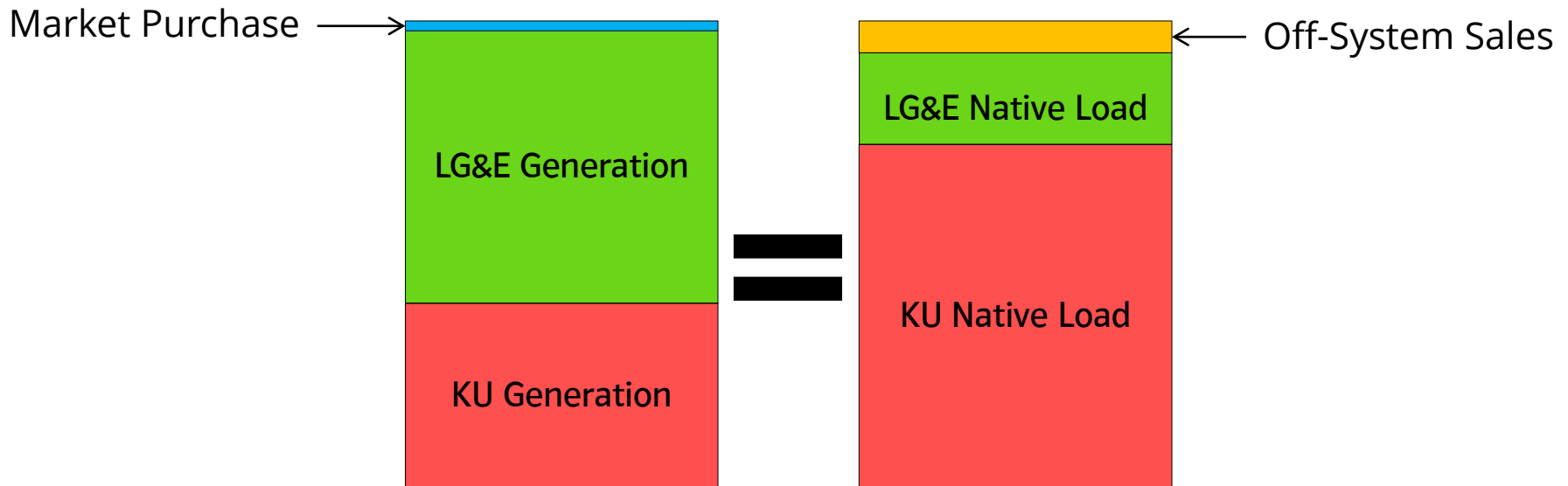


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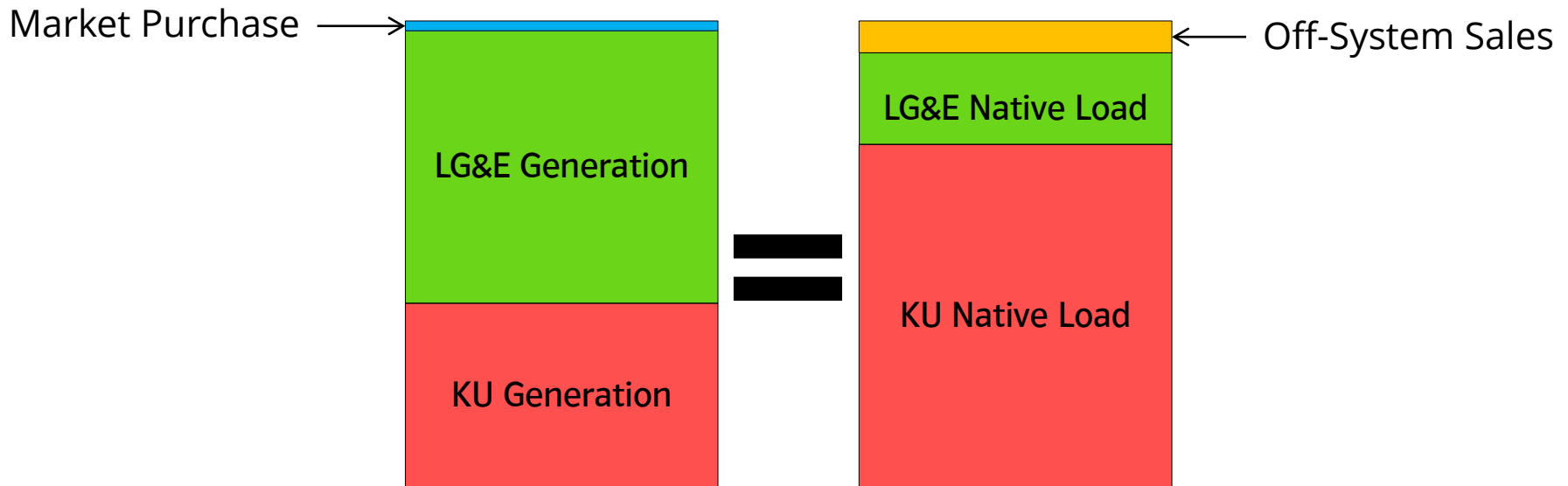
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Remaining Sources Remaining Uses

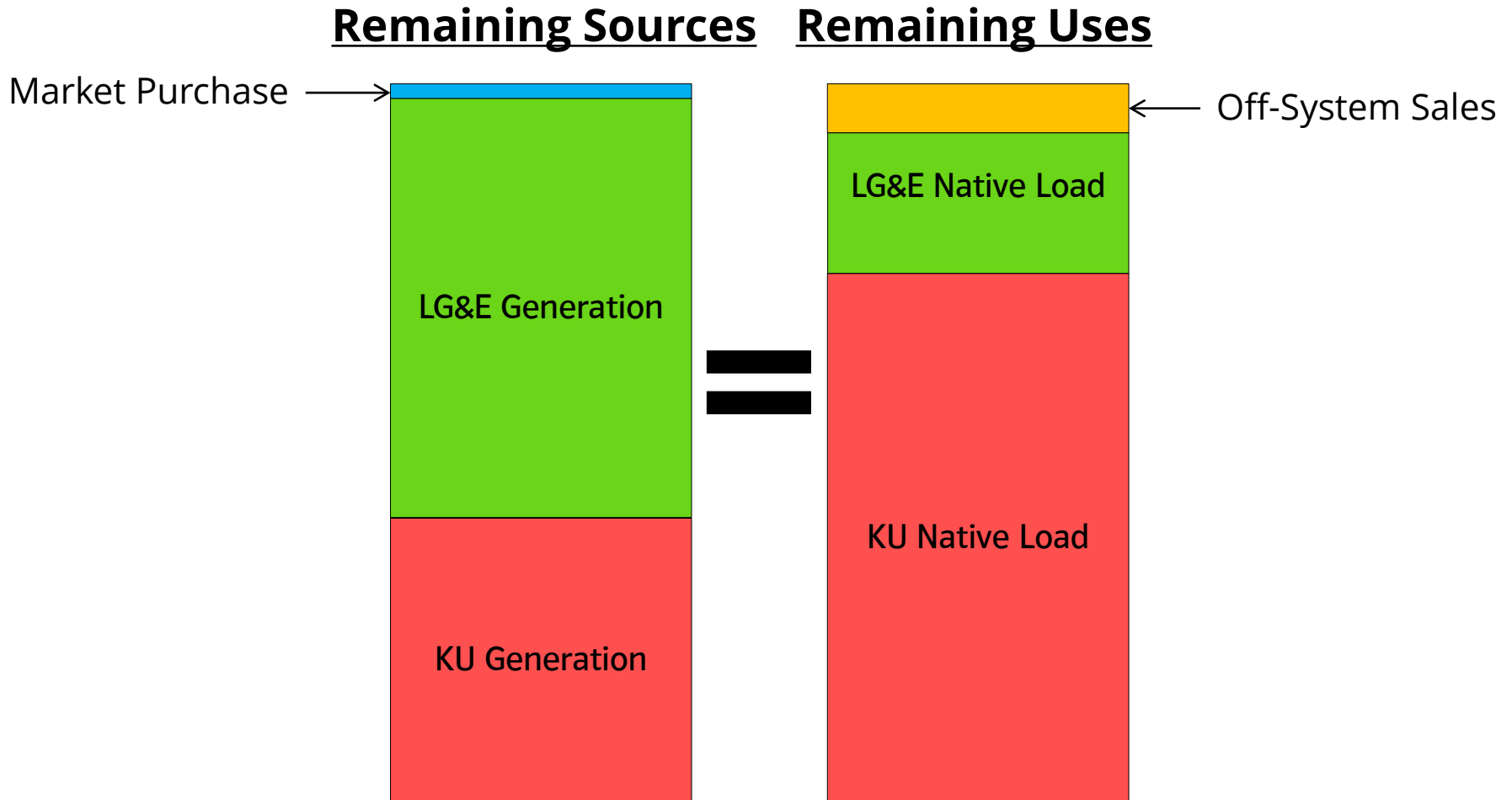


Part 2: Assign remaining sources to OSS, KU native load, or LG&E native load based on incremental cost and ownership

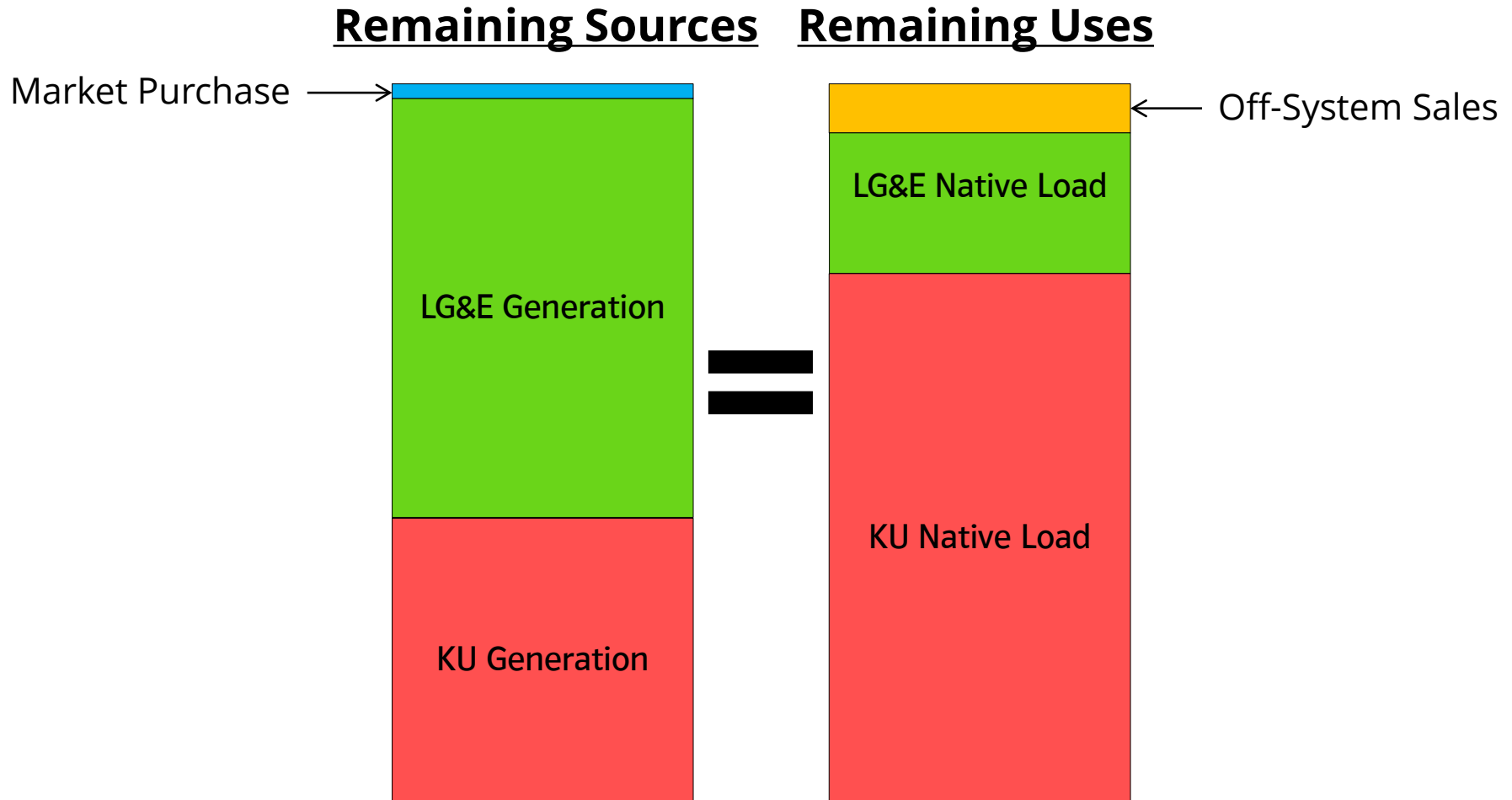
Remaining Sources Remaining Uses



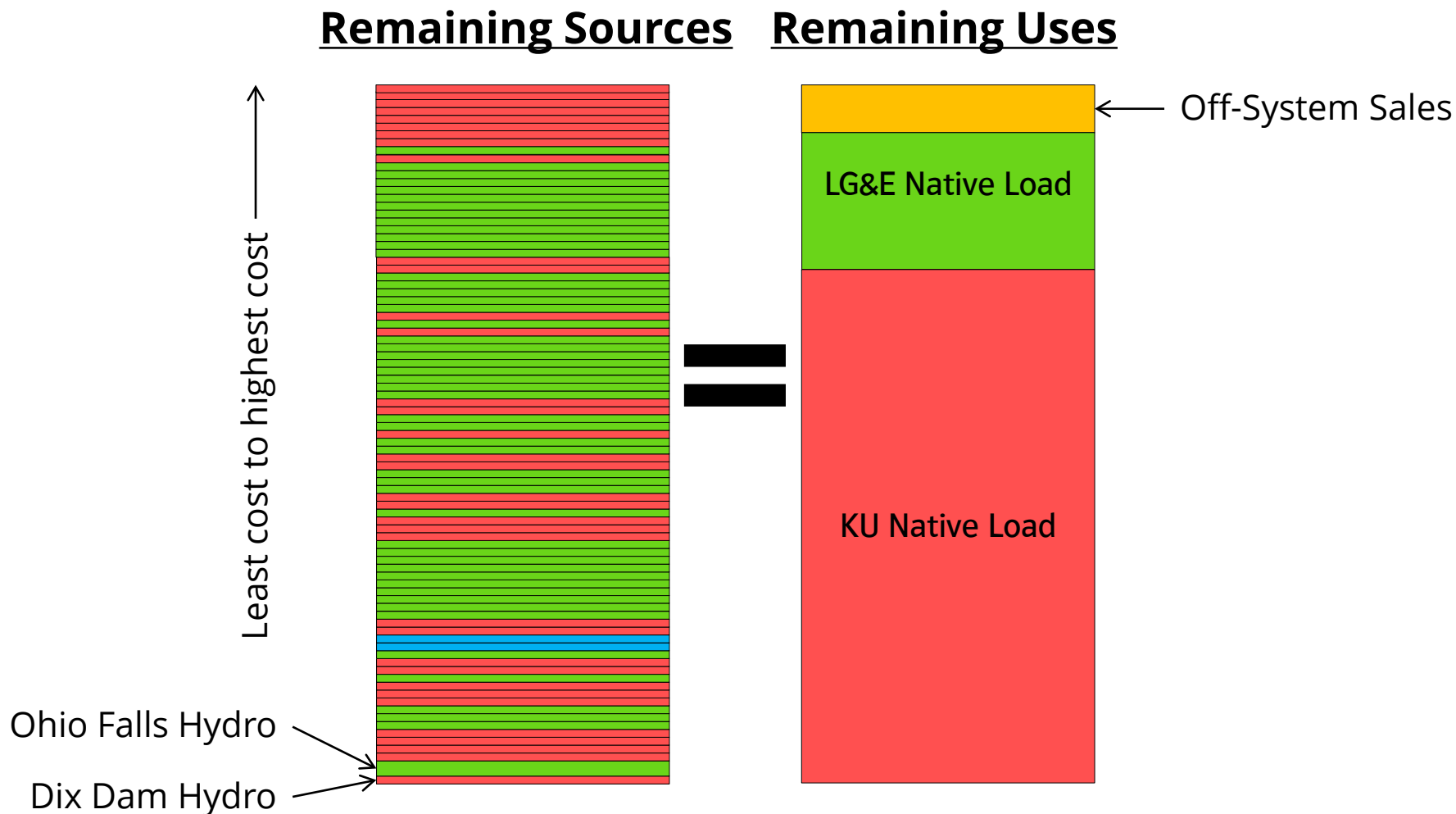
Part 2: Assign remaining sources to OSS, KU native load, or LG&E native load based on incremental cost and ownership



Step 1: Sort sources by incremental cost

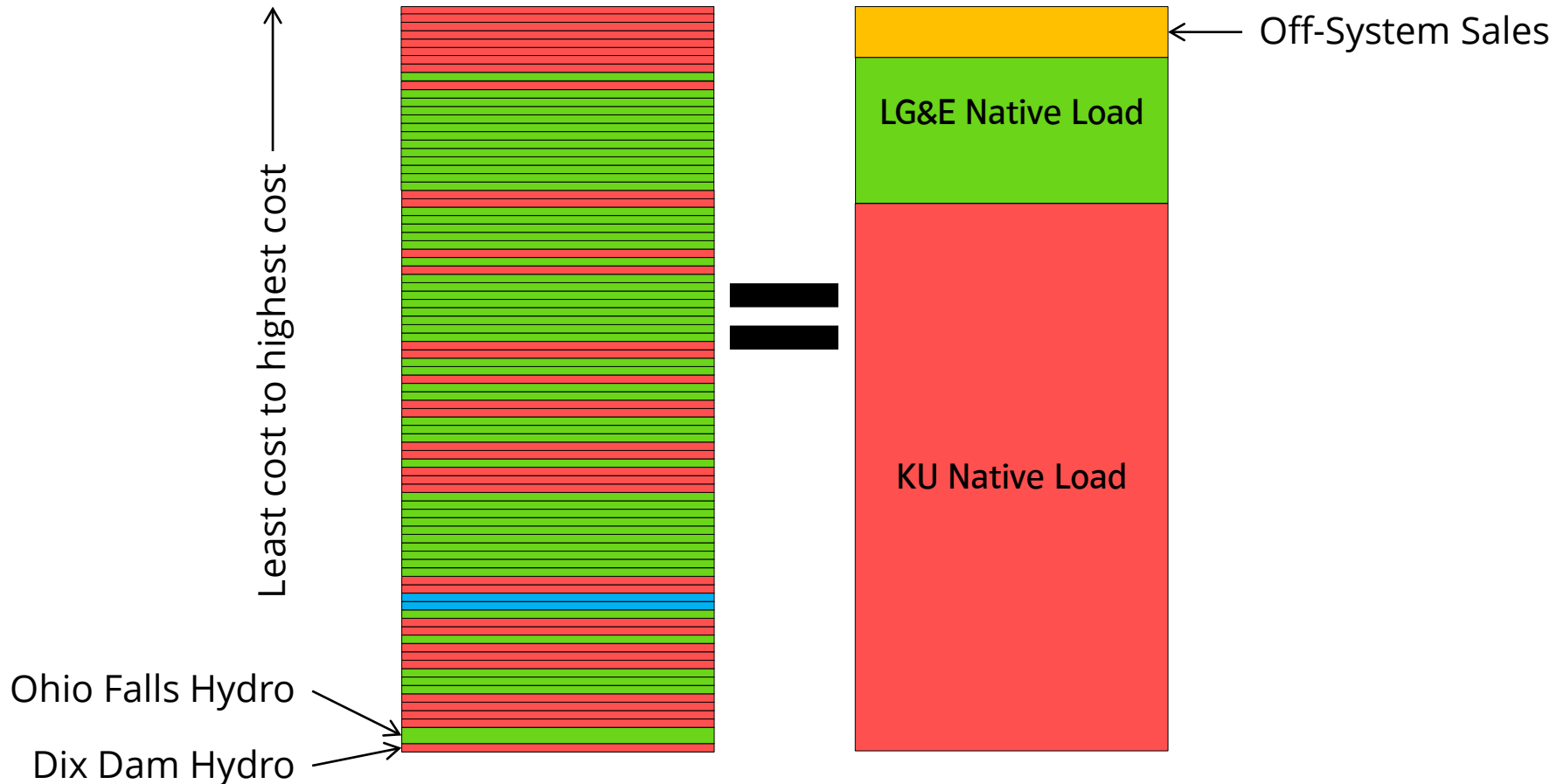


Step 1: Sort sources by incremental cost

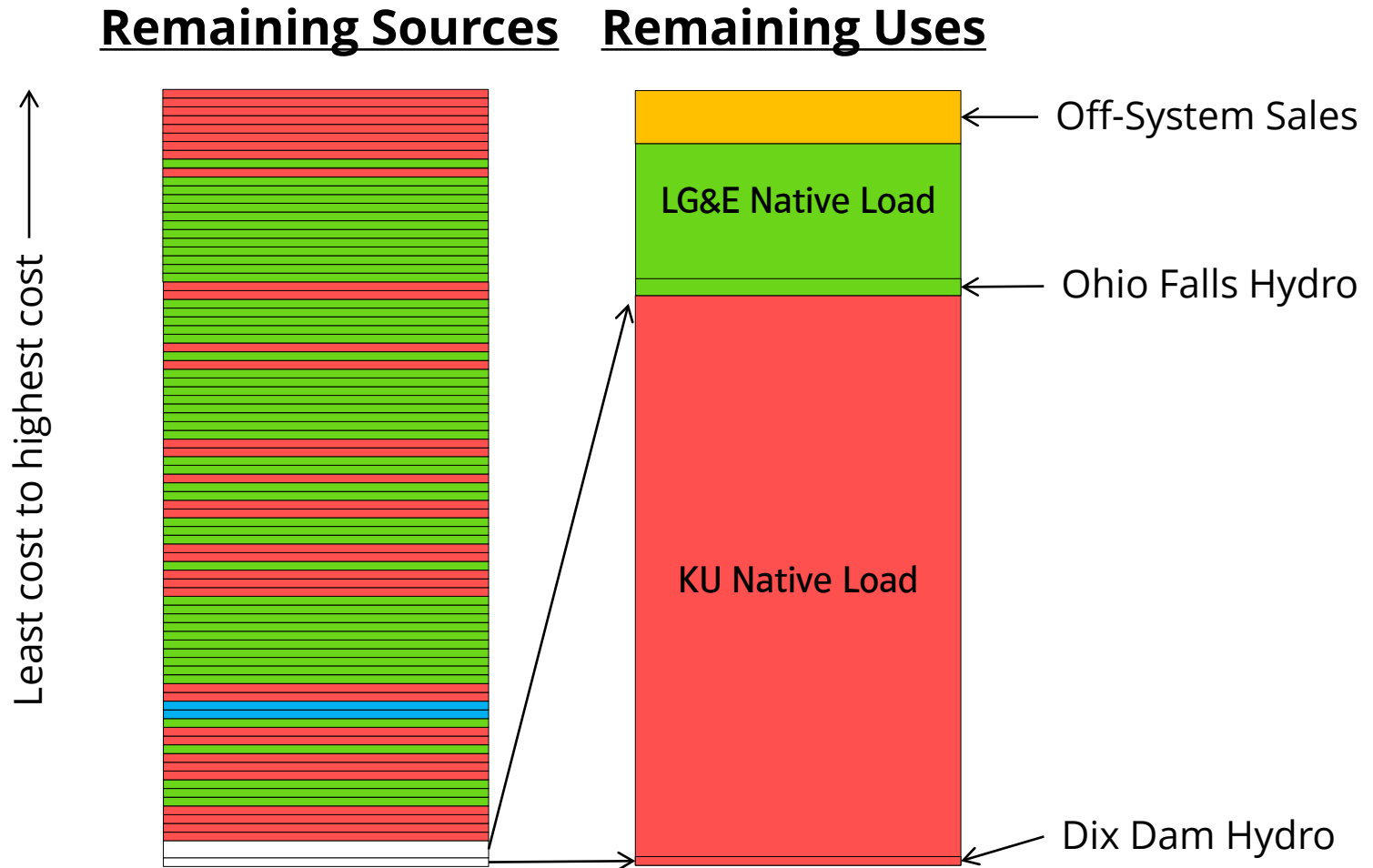


Step 2: Assign each company's MWs to its native load until one company's native load is fully served

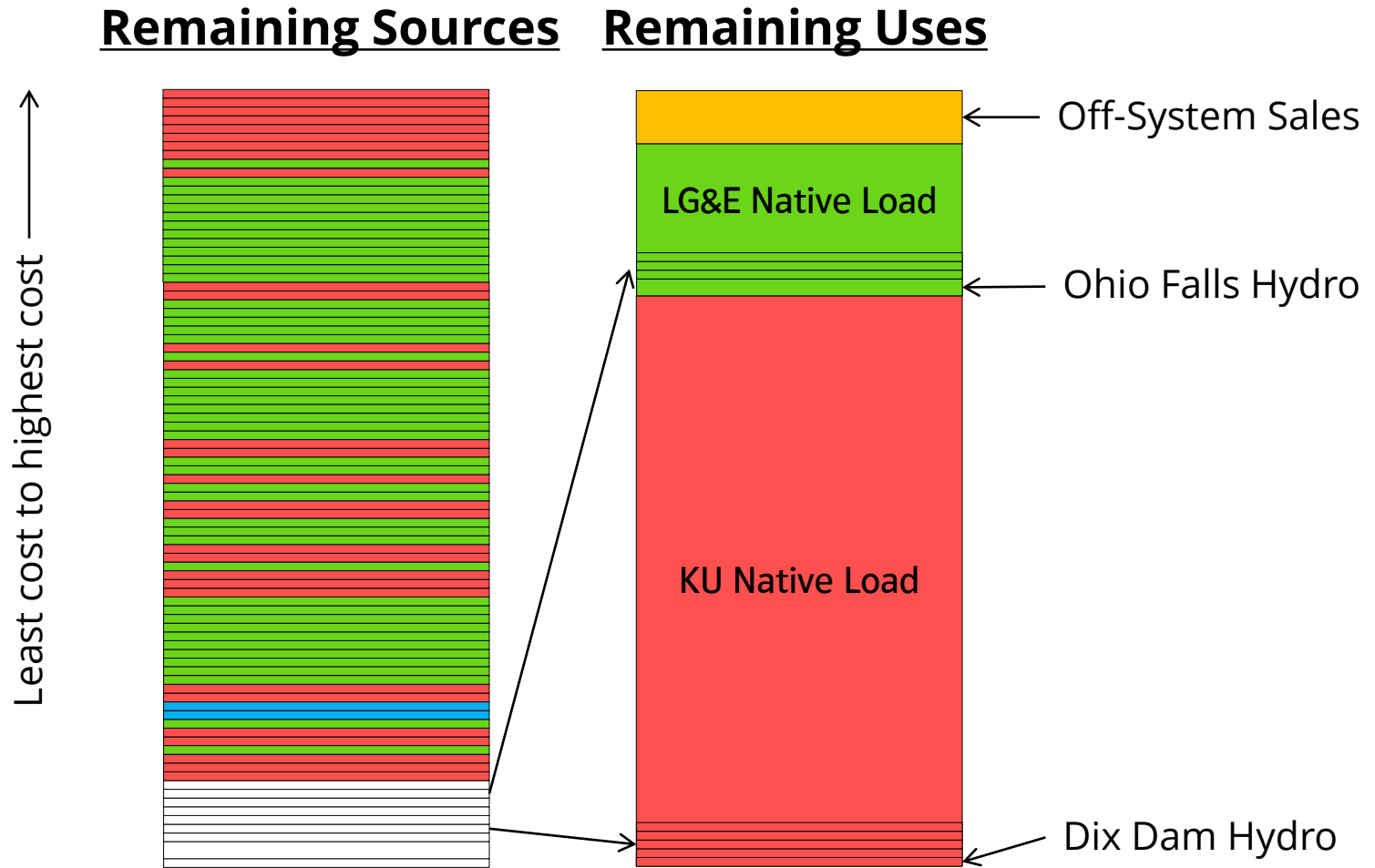
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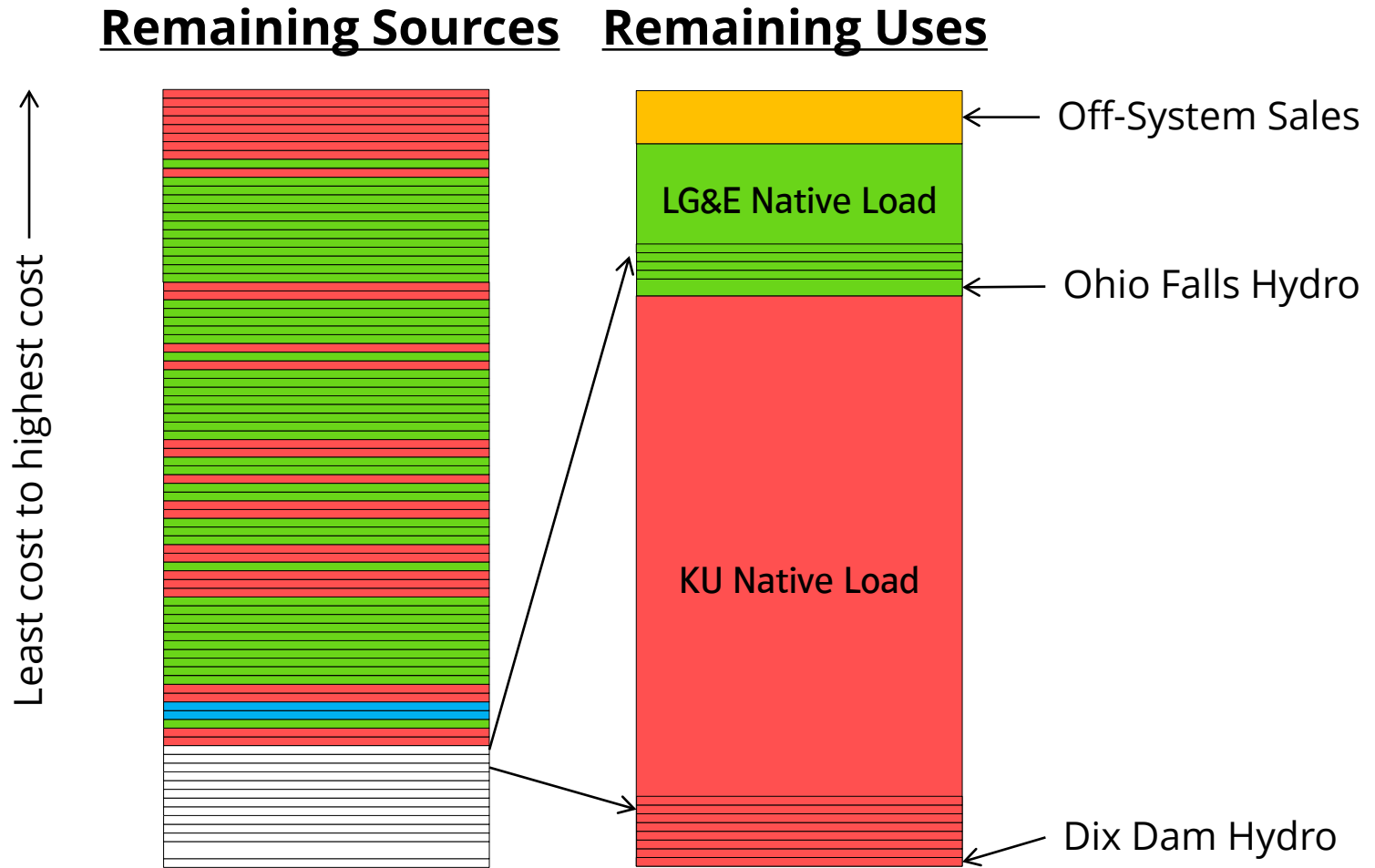
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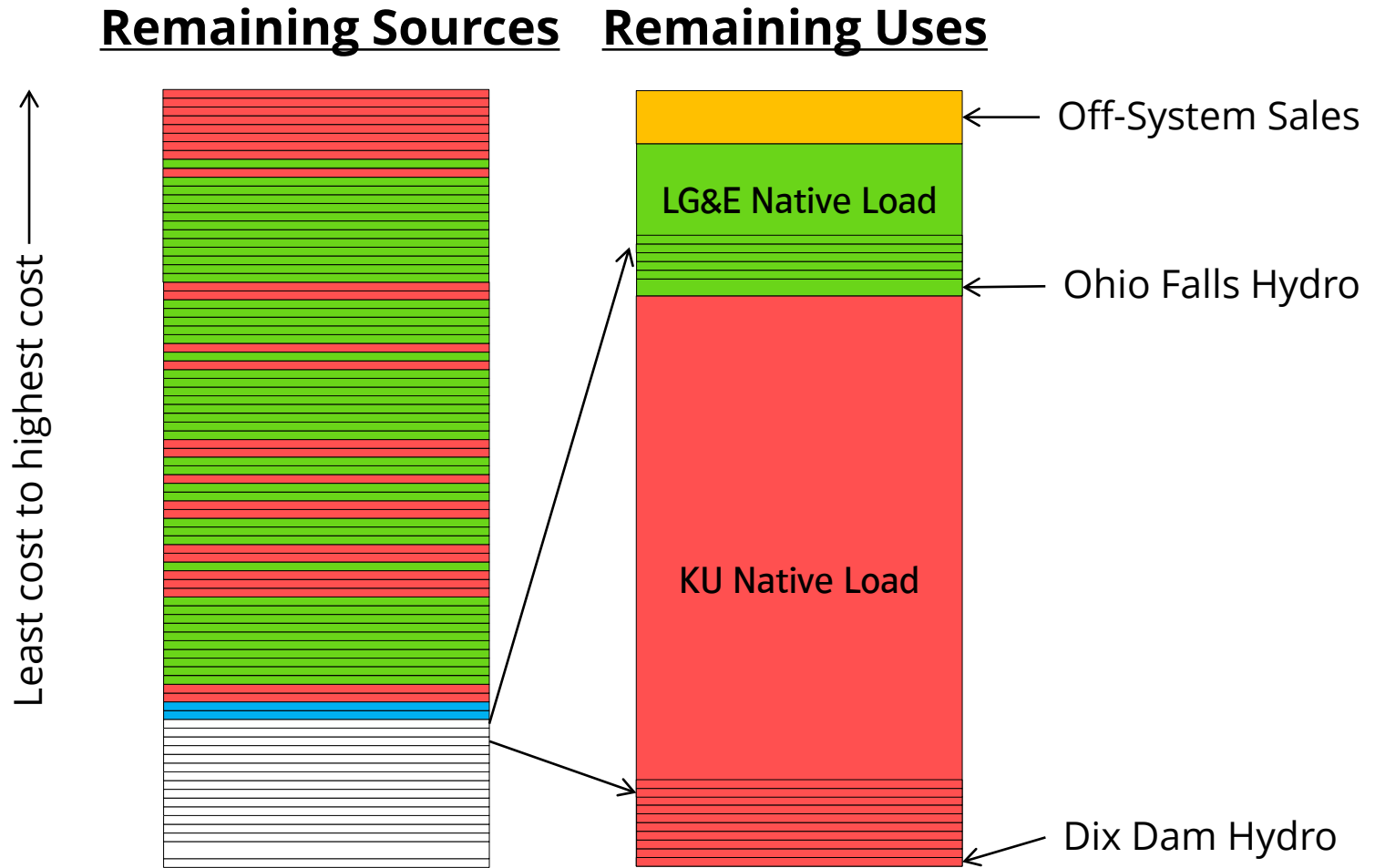
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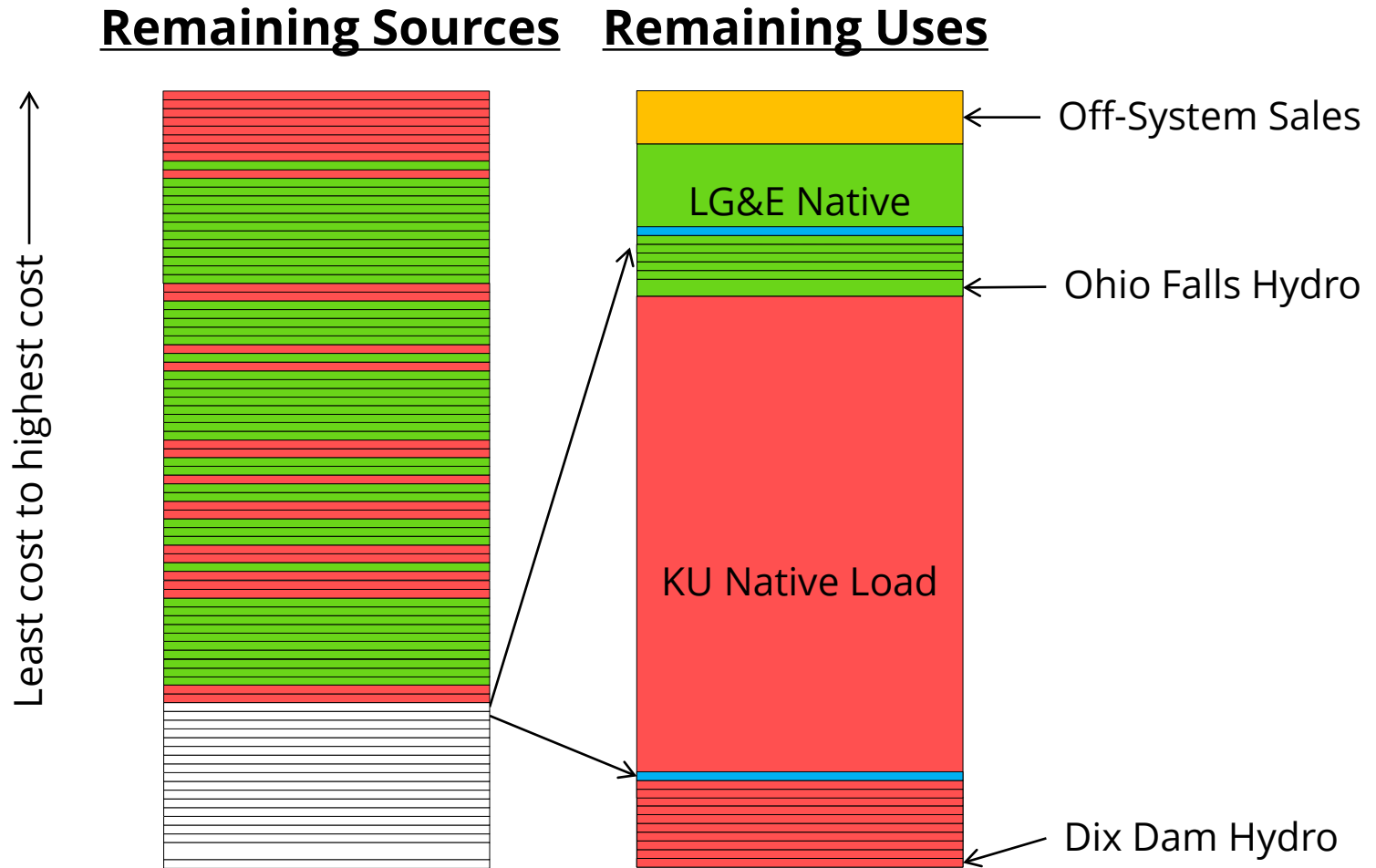
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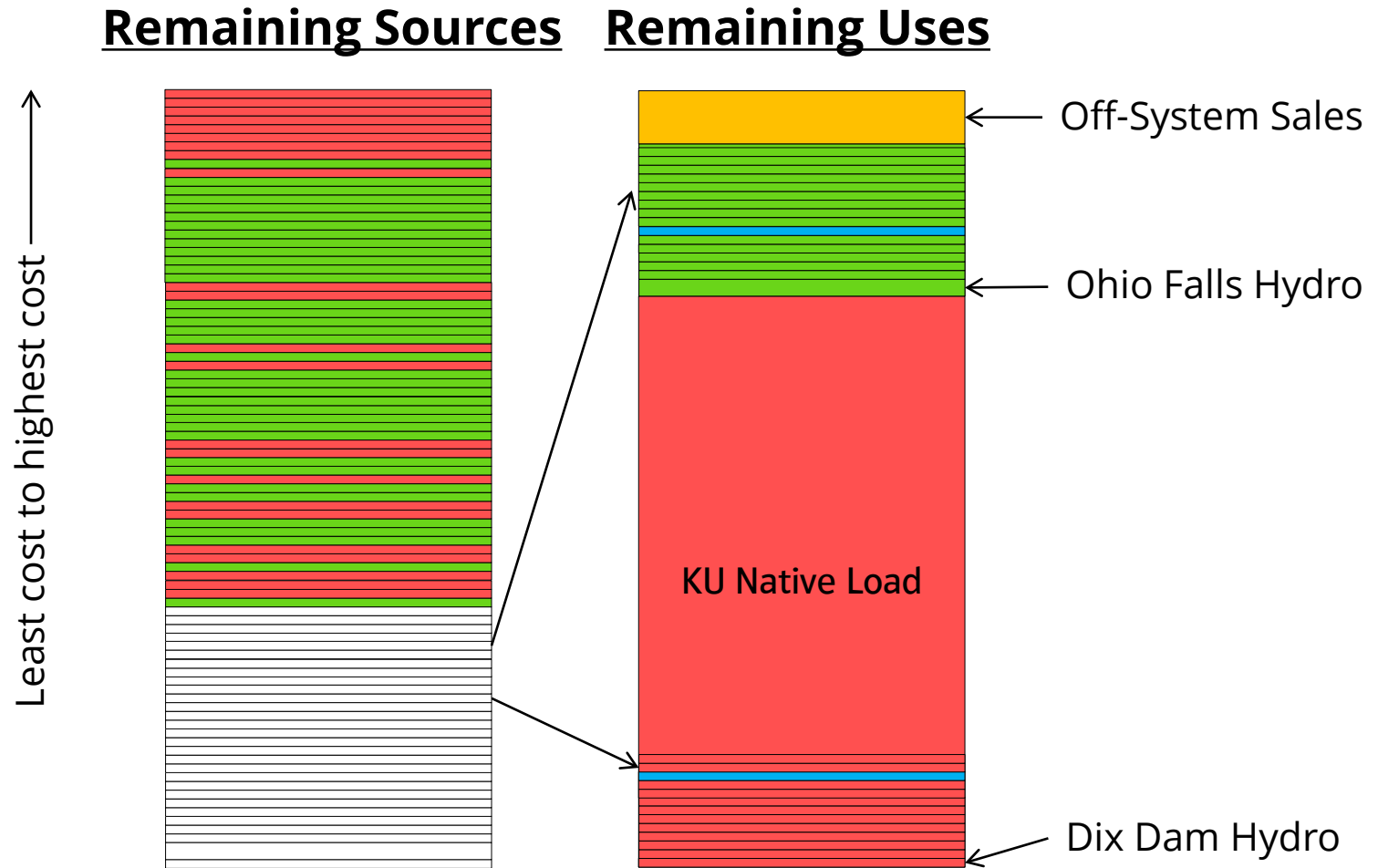
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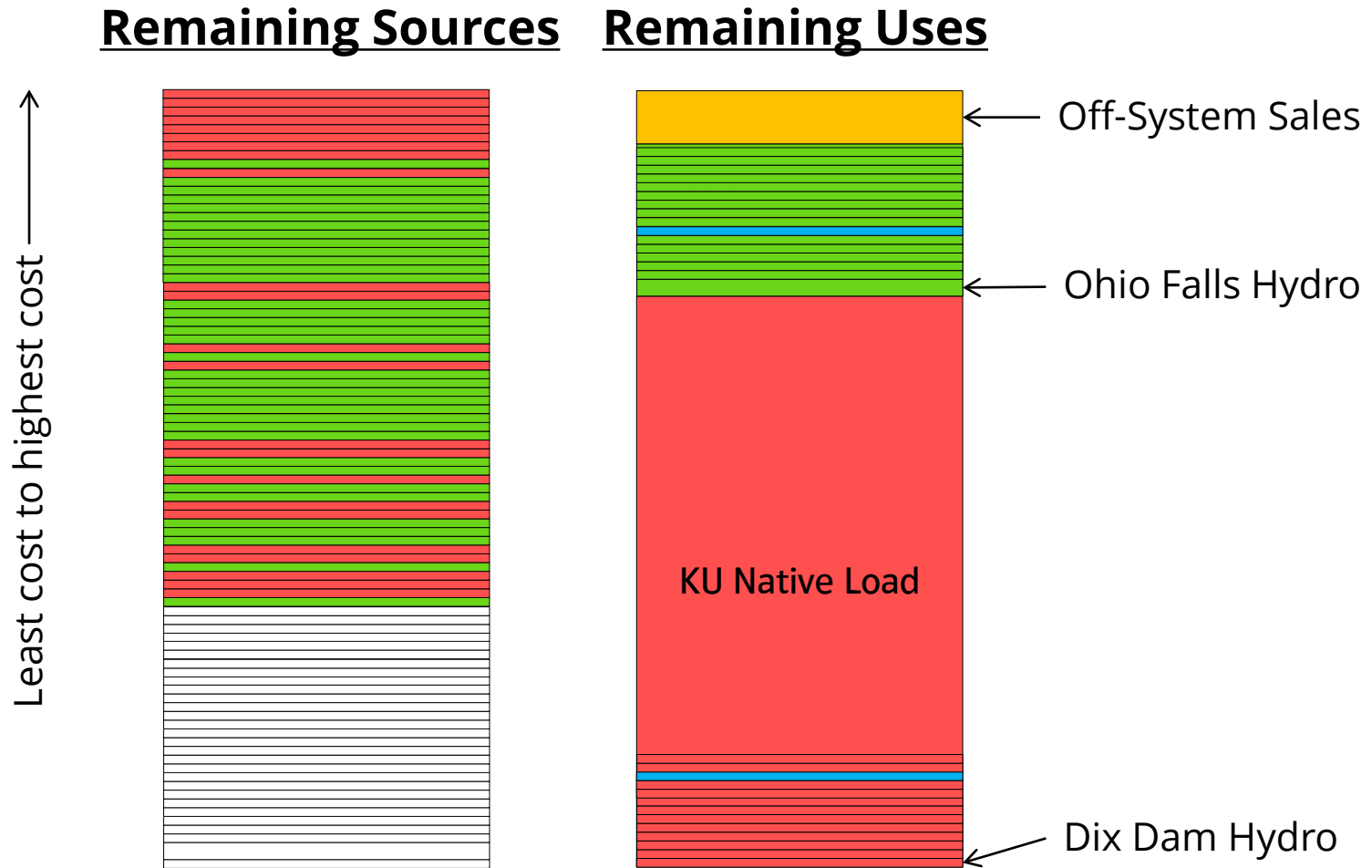
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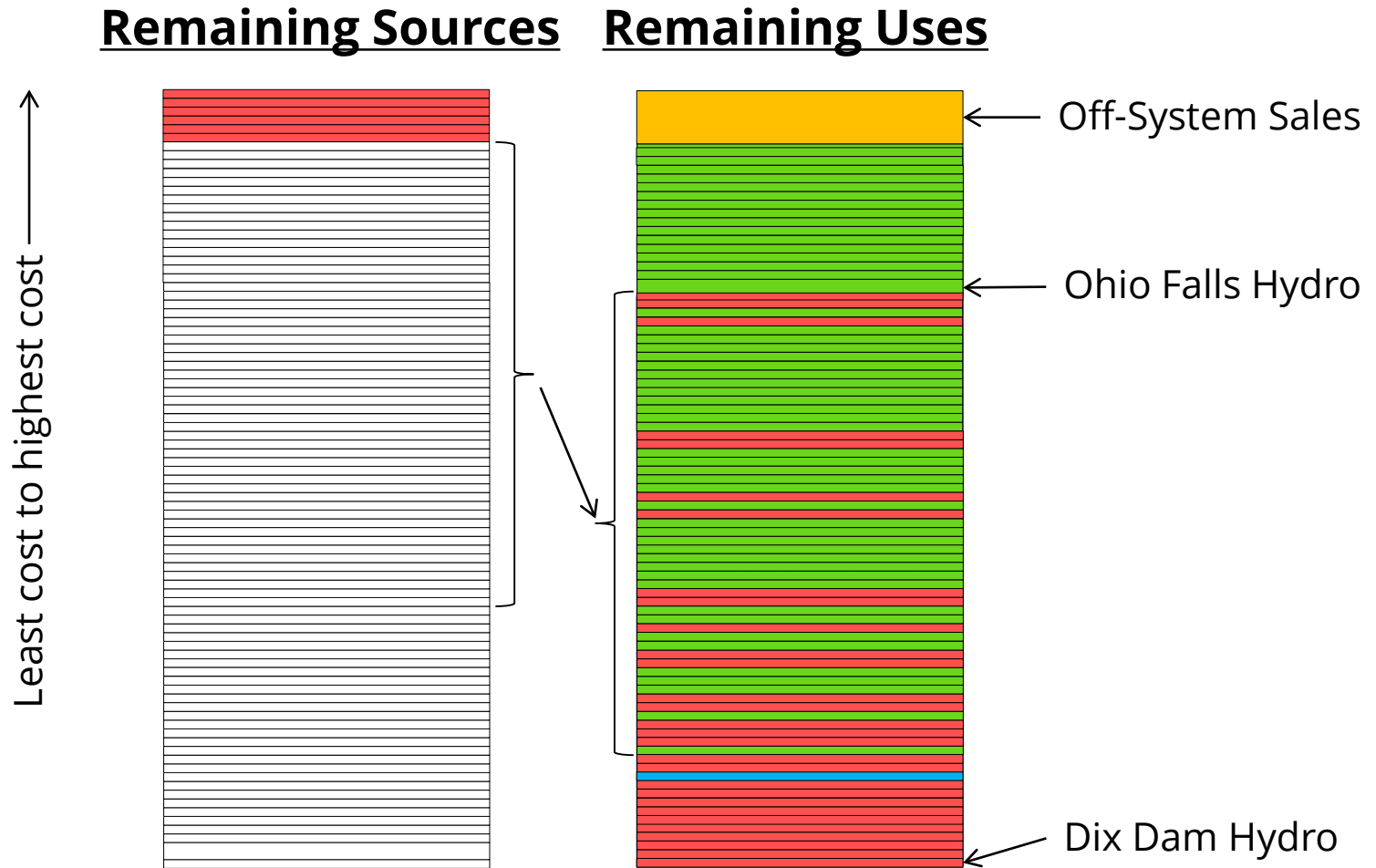
Step 2: Assign each company's MWs to its native load until one company's native load is fully served



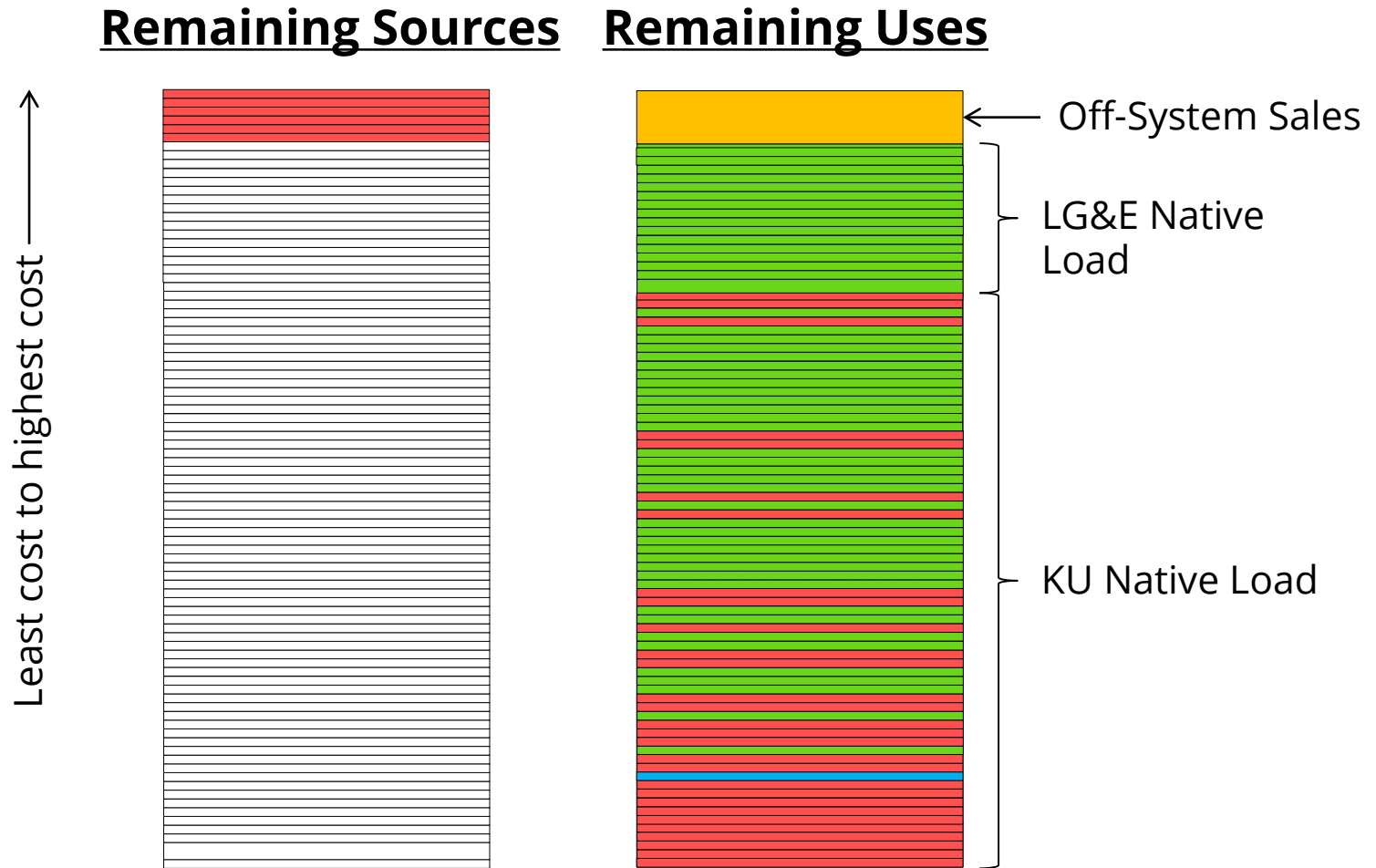
Step 3: Once one company's native load is fully served, continue assigning remaining MWs to other company's native load until it is fully served



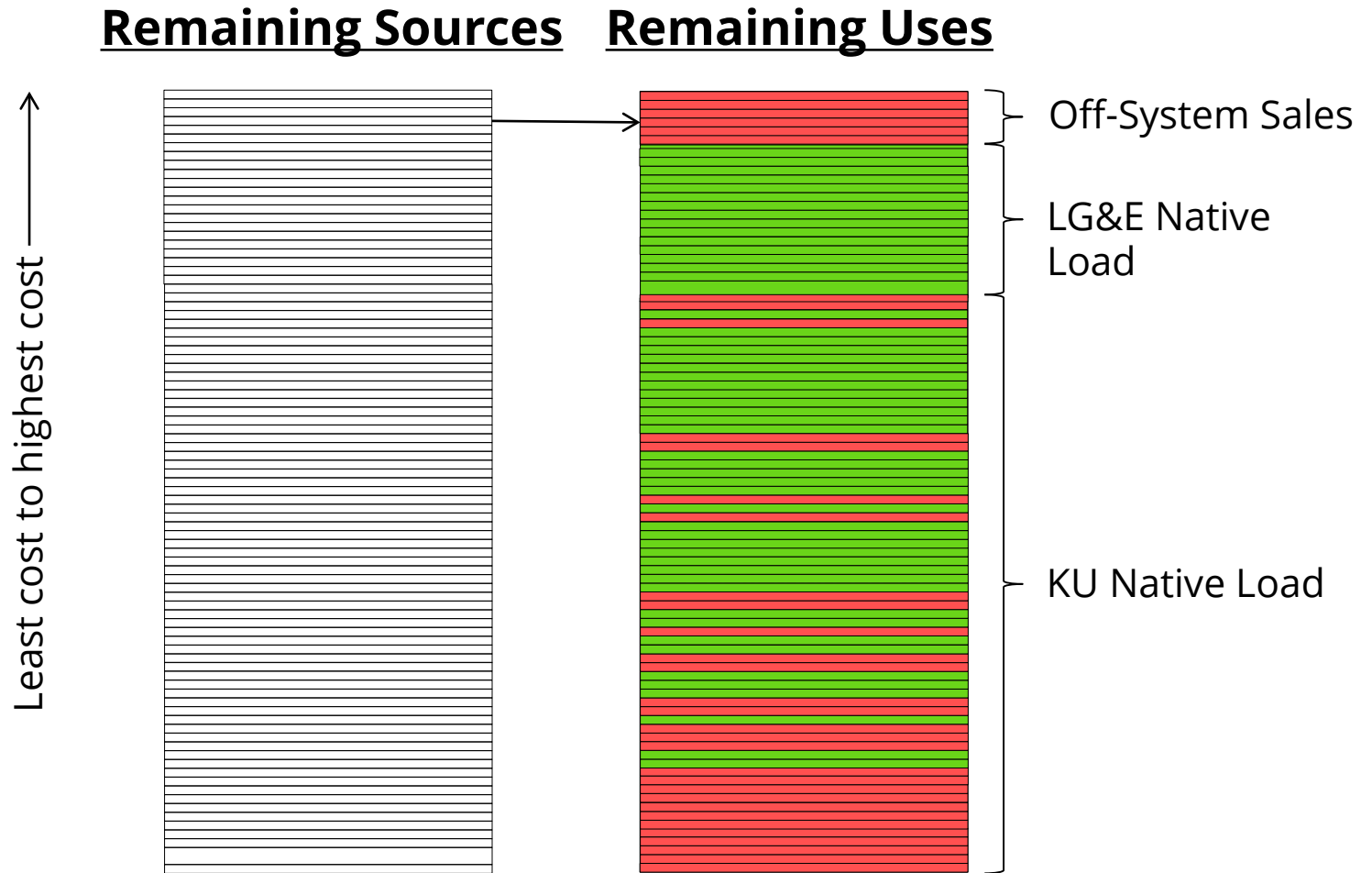
Step 3: Once one company's native load is fully served, continue assigning remaining MWs to other company's native load until it is fully served



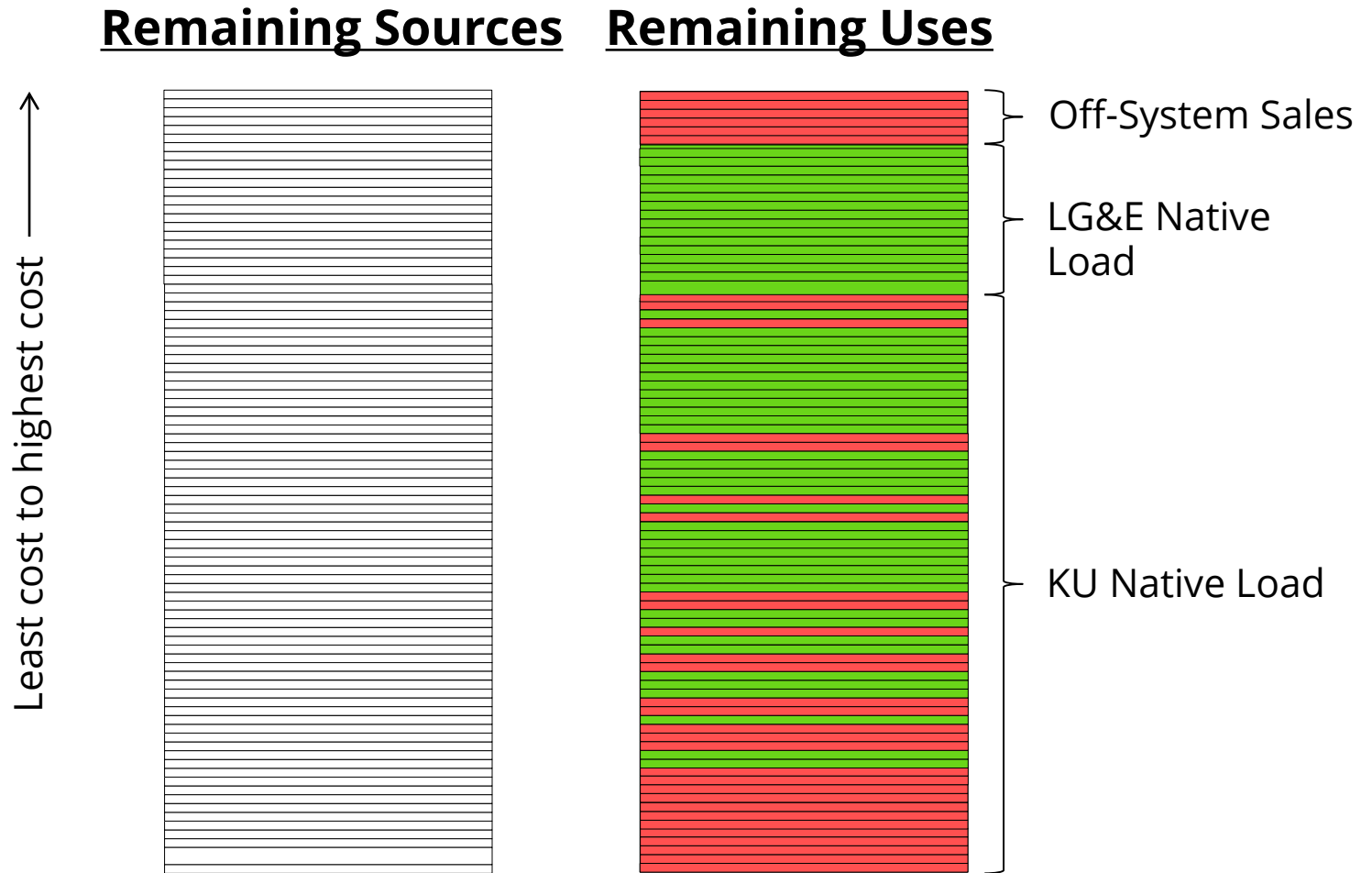
Step 4: Once both company's native loads are fully served, assign most expensive MWs to off-system sales



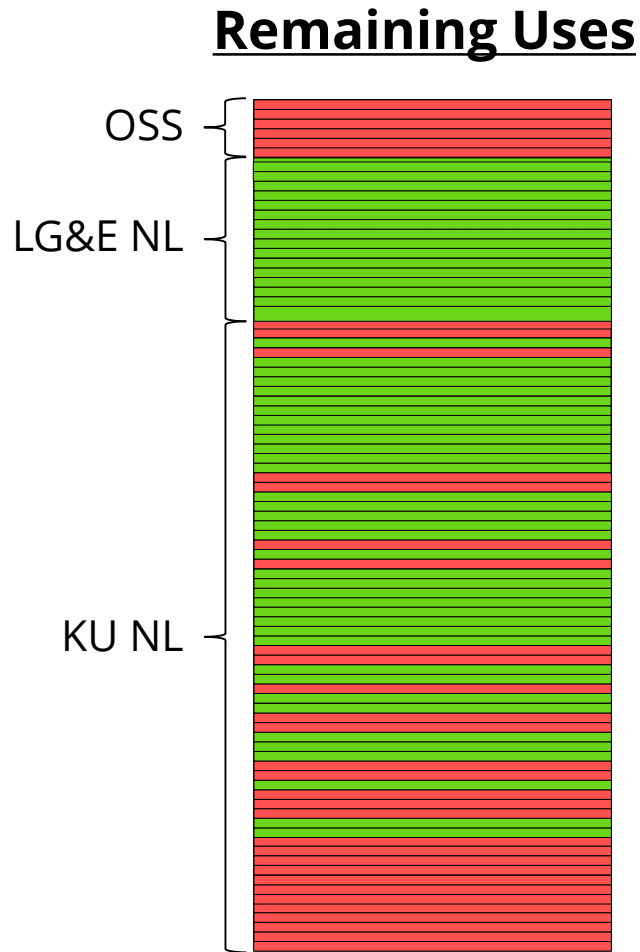
Step 4: Once both company's native loads are fully served, assign most expensive MWs to off-system sales



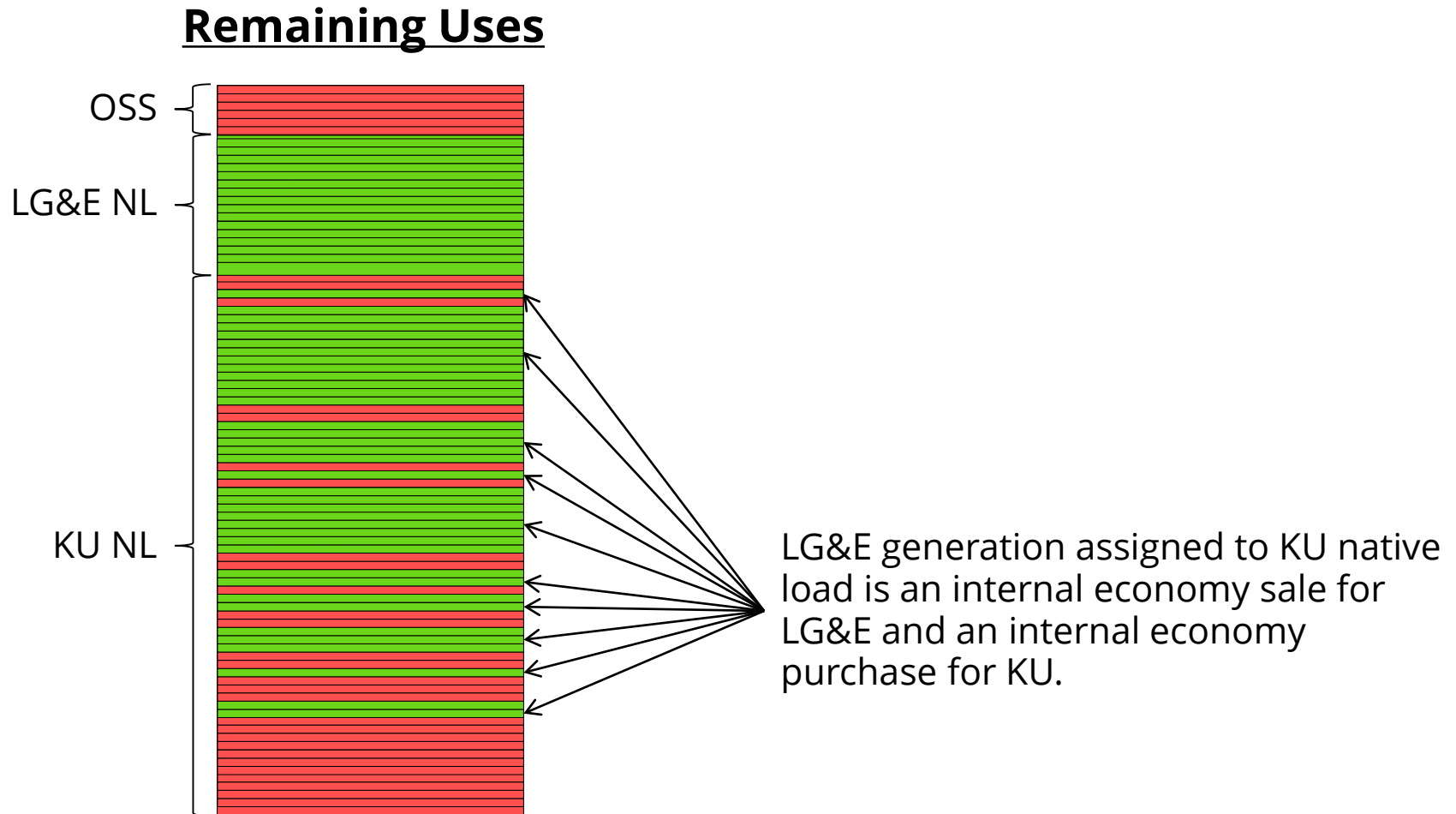
AFB provides basis for inputs on FAC Form A: Intercompany Transactions



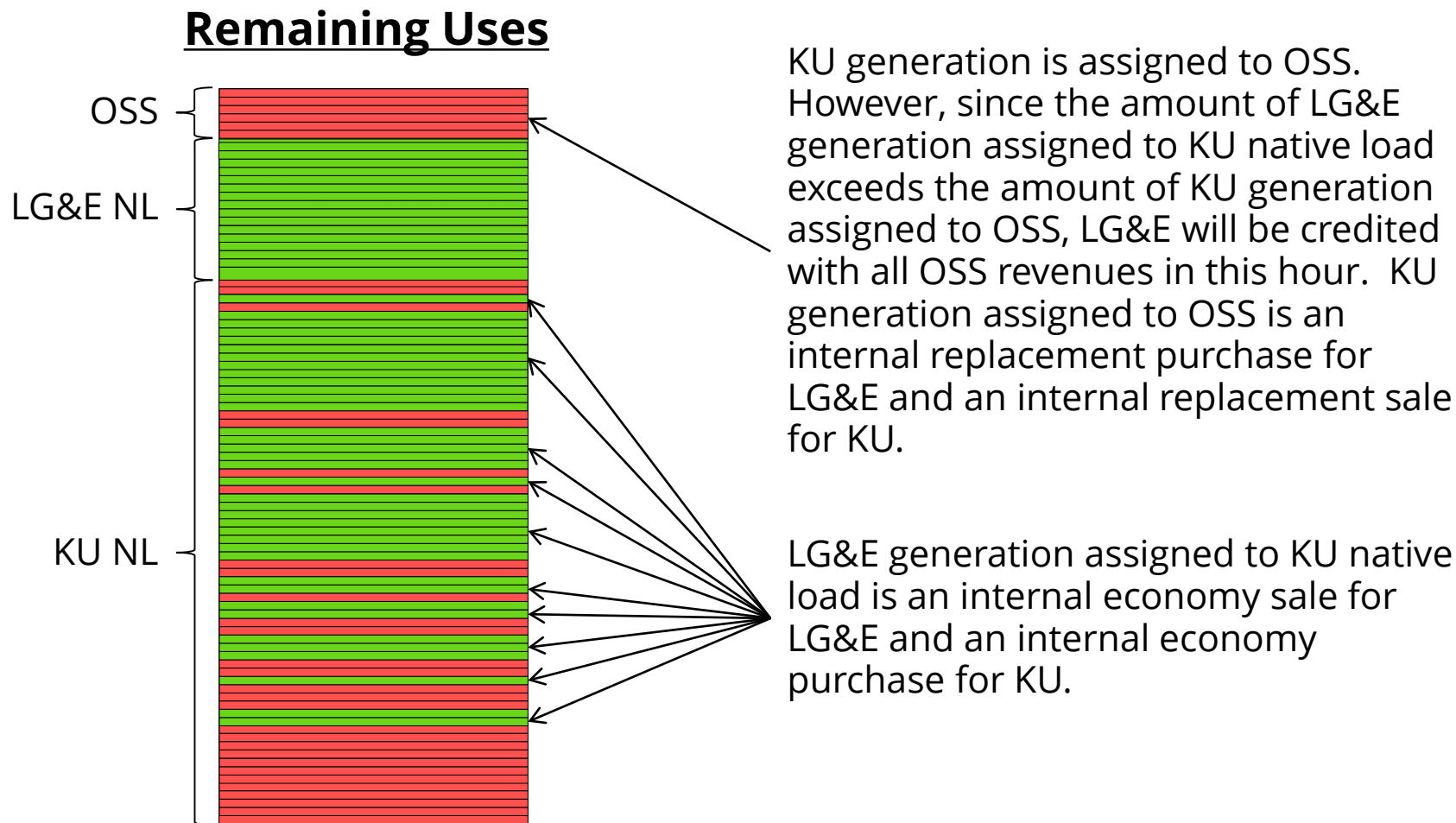
AFB provides basis for inputs on FAC Form A: Intercompany Transactions



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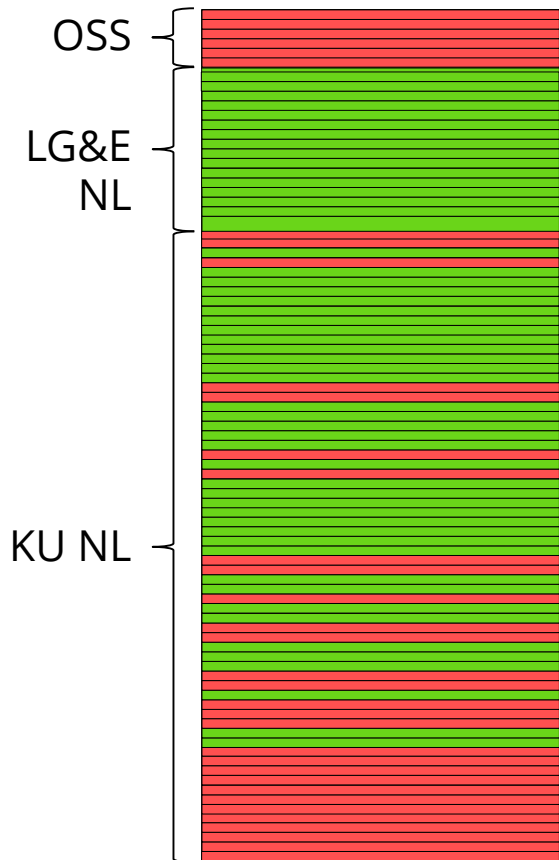


AFB provides basis for inputs on FAC Form A: Intercompany Transactions



AFB provides basis for inputs on FAC Form A: Intercompany Transactions

Remaining Uses



Split Savings (for LG&E) are computed as half the difference between (a) the fuel cost of KU generation assigned to OSS (LG&E's replacement purchase) and (b) the fuel cost of the LG&E generation that freed-up the KU generation for OSS.