

Expected Value of Perfect Information (EVPI)

Evaluation Criteria: Levelized System Rates Expected Value: 6.973 ¢/kWh Preferred Strategy:
No DSM; Balanced Expansion of CT & CC

<u>Uncertainty</u>	<u>EVPI</u>	<u>Alternate Preferred Strategy</u>
Future Environmental Costs	0.003	No DSM; All CT Early 2000's; All CC Late 2000's or No DSM; All CC Expansion
Load Forecast	0.003	No DSM; All CC Early 2000's; All CT Late 2000's or No DSM; All CC Expansion
Fuel Cost	0.000	

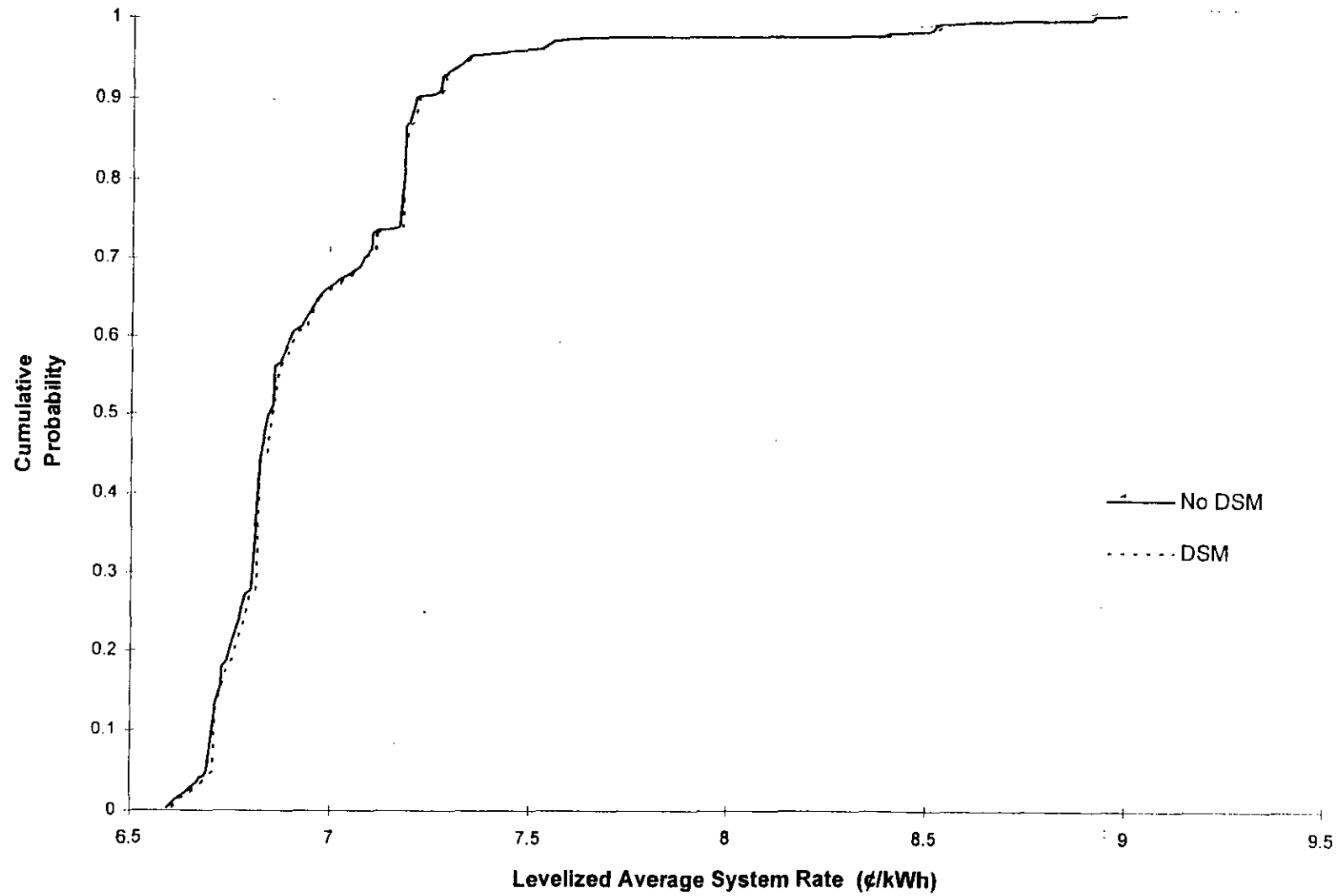
Evaluation Criteria: Utility Cost Expected Value: \$25,977.75 Mil Preferred Strategy:
With DSM; Balanced Expansion of CT & CC

<u>Uncertainty</u>	<u>EVPI</u>	<u>Alternate Preferred Strategy</u>
Future Environmental Costs	10.22	With DSM; All CT Early 2000's; All CC Late 2000's or With DSM; All CC Expansion
Load Forecast	8.14	With DSM; All CC Expansion
Fuel Cost	0.18	With DSM; All CC Expansion

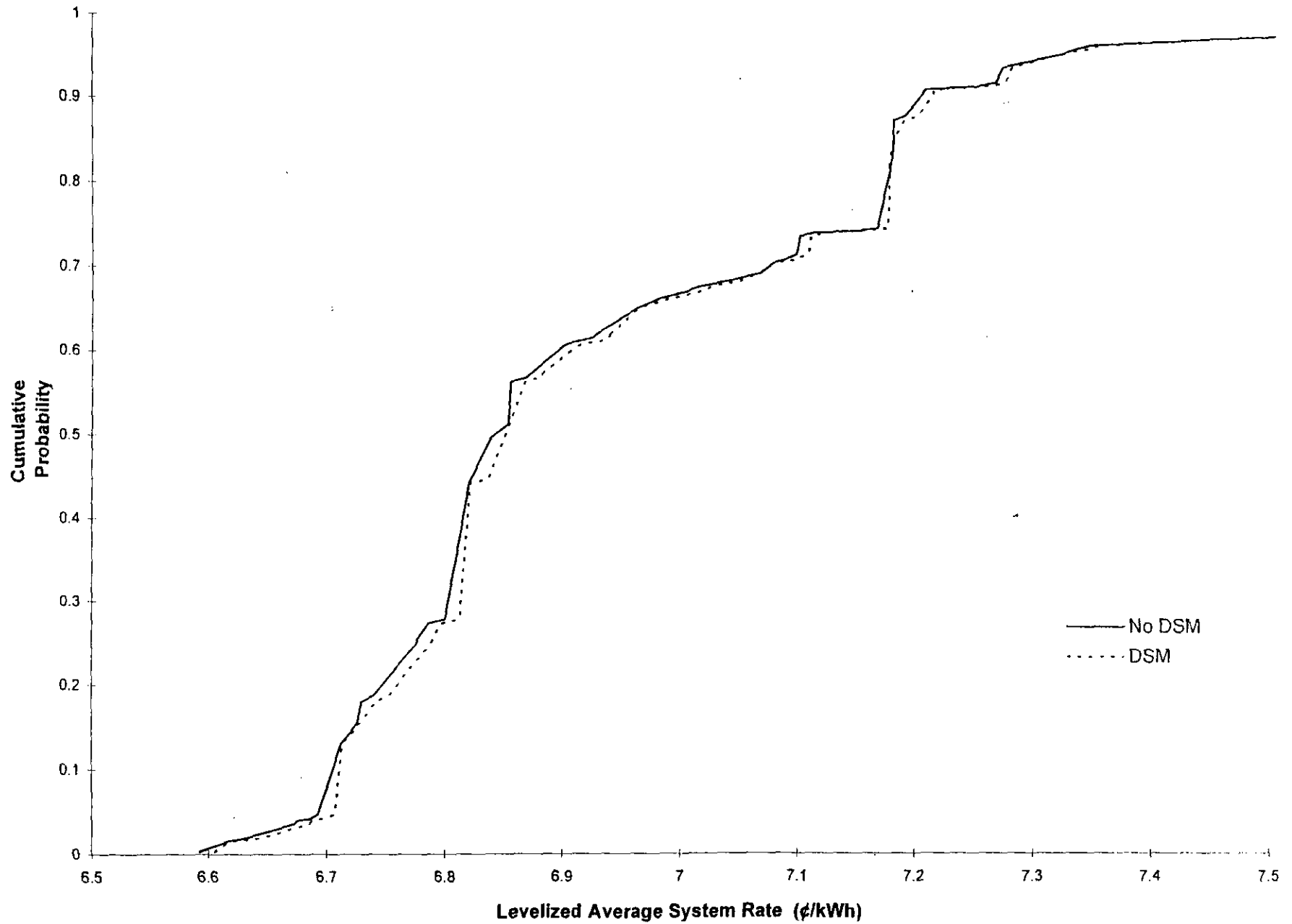
Evaluation Criteria: Total Resource Cost Expected Value: \$25,991.31 Mil Preferred Strategy:
DSM20; All CT Expansion; Ven 5&6 Repower 2008

<u>Uncertainty</u>	<u>EVPI</u>	<u>Alternate Preferred Strategy</u>
Future Environmental Costs	10.22	With DSM; All CT Early 2000's; All CC Late 2000's or With DSM; All CC Expansion
Load Forecast	8.14	With DSM; All CC Expansion
Fuel Cost	0.18	With DSM; All CC Expansion

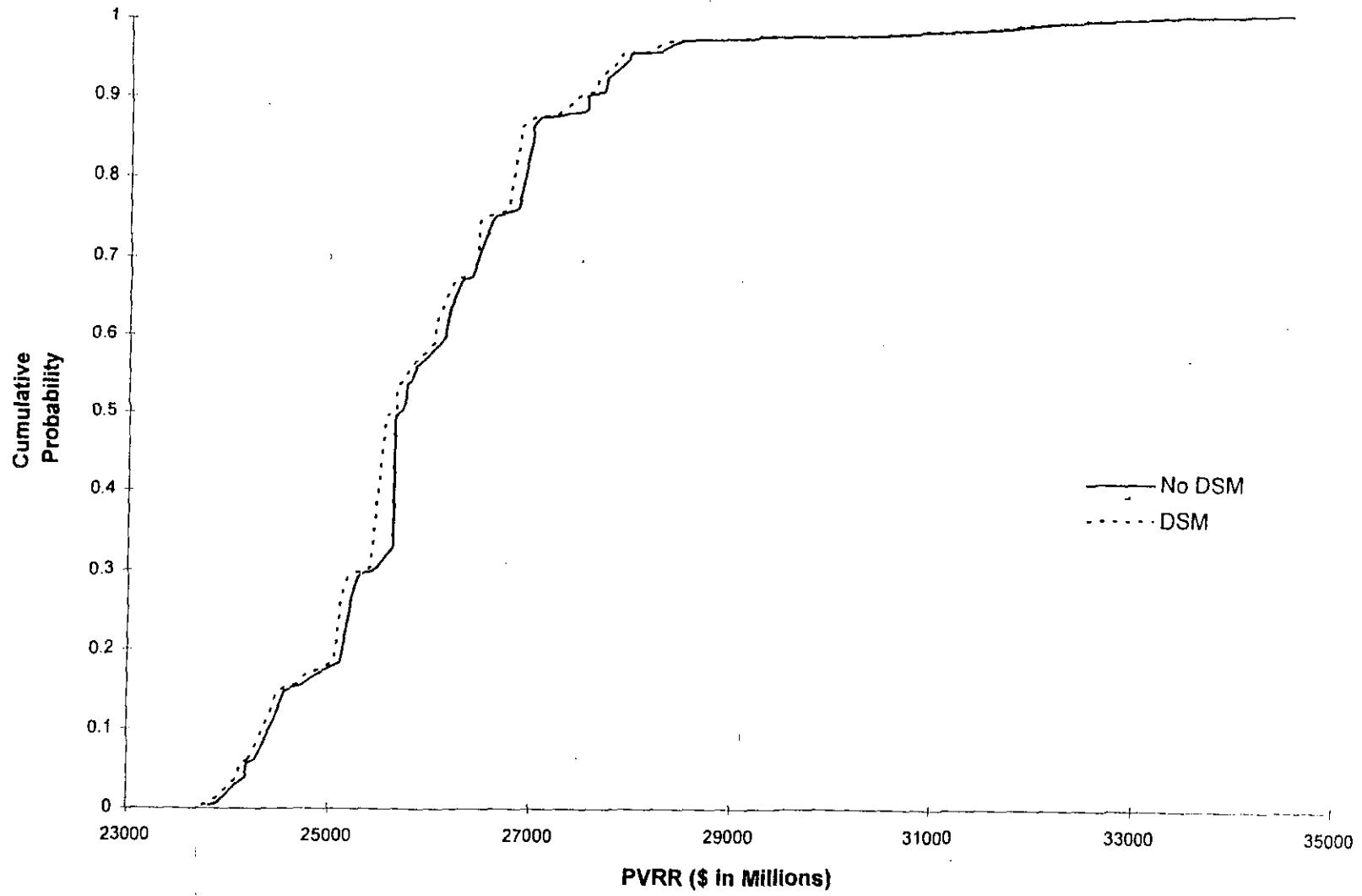
Levelized Average System Rates Risk Profile for DSM Decision



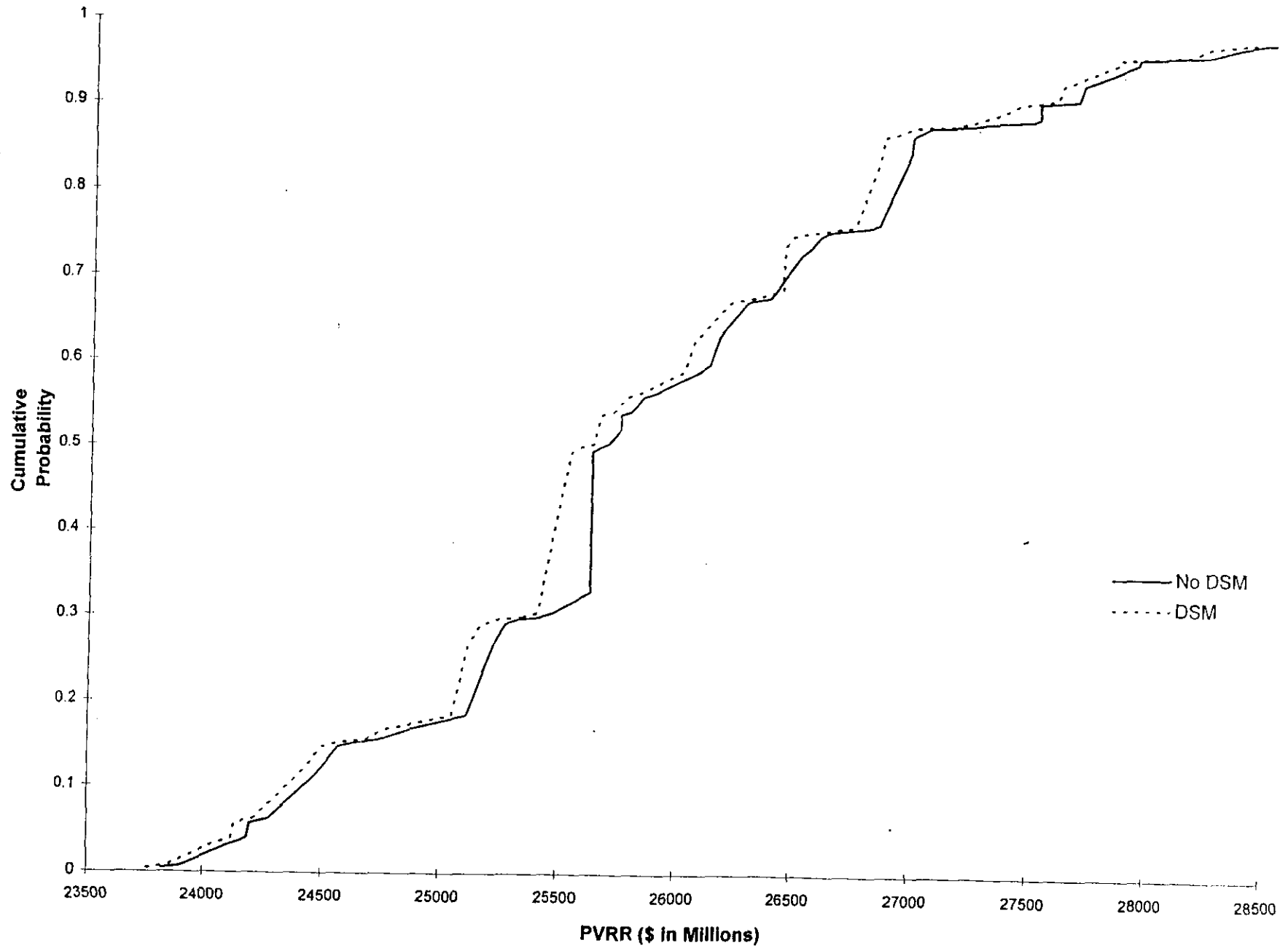
Levelized Average System Rates Risk Profile for DSM Decision



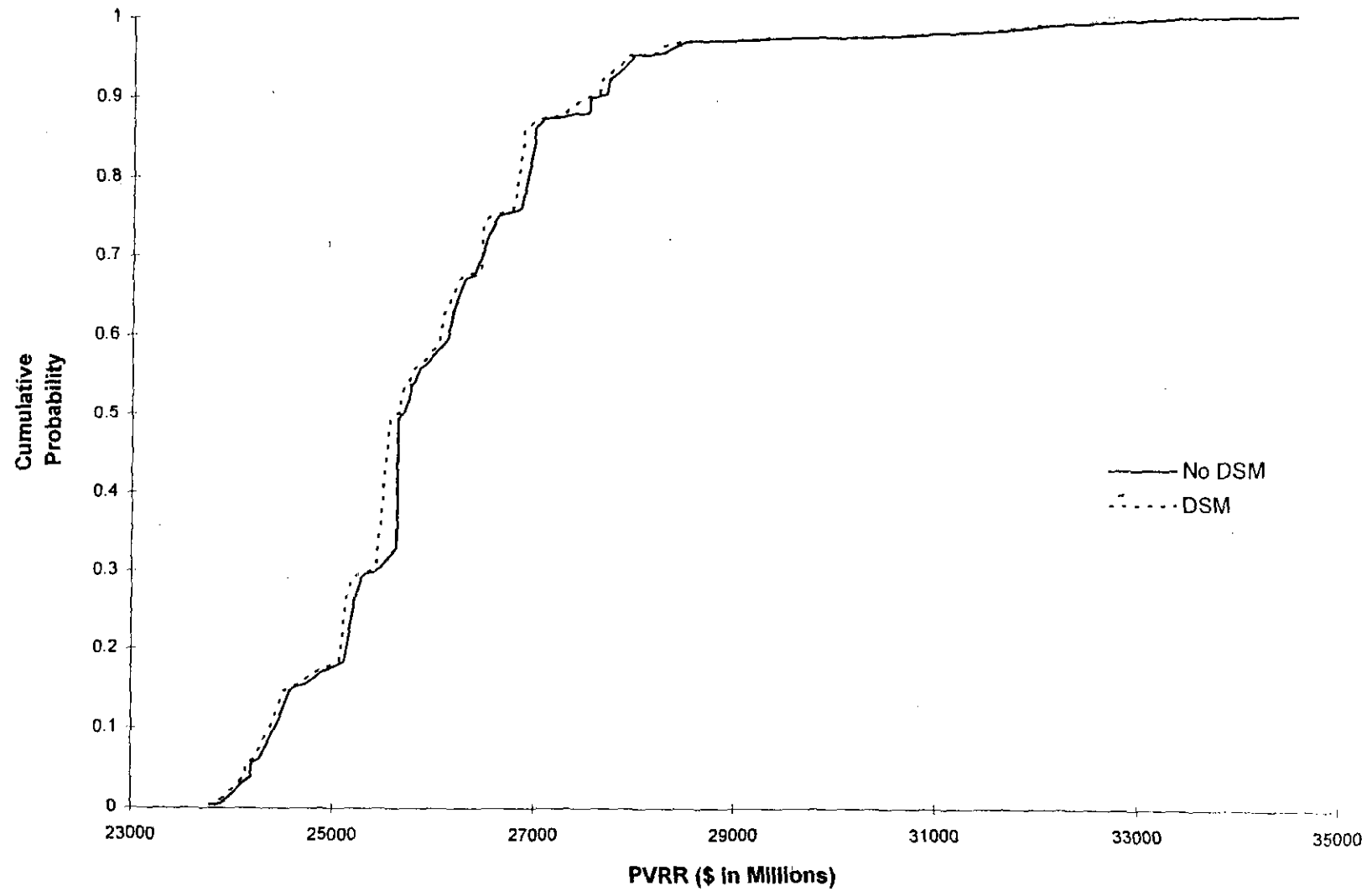
Utility Cost Risk Profile for DSM Decision



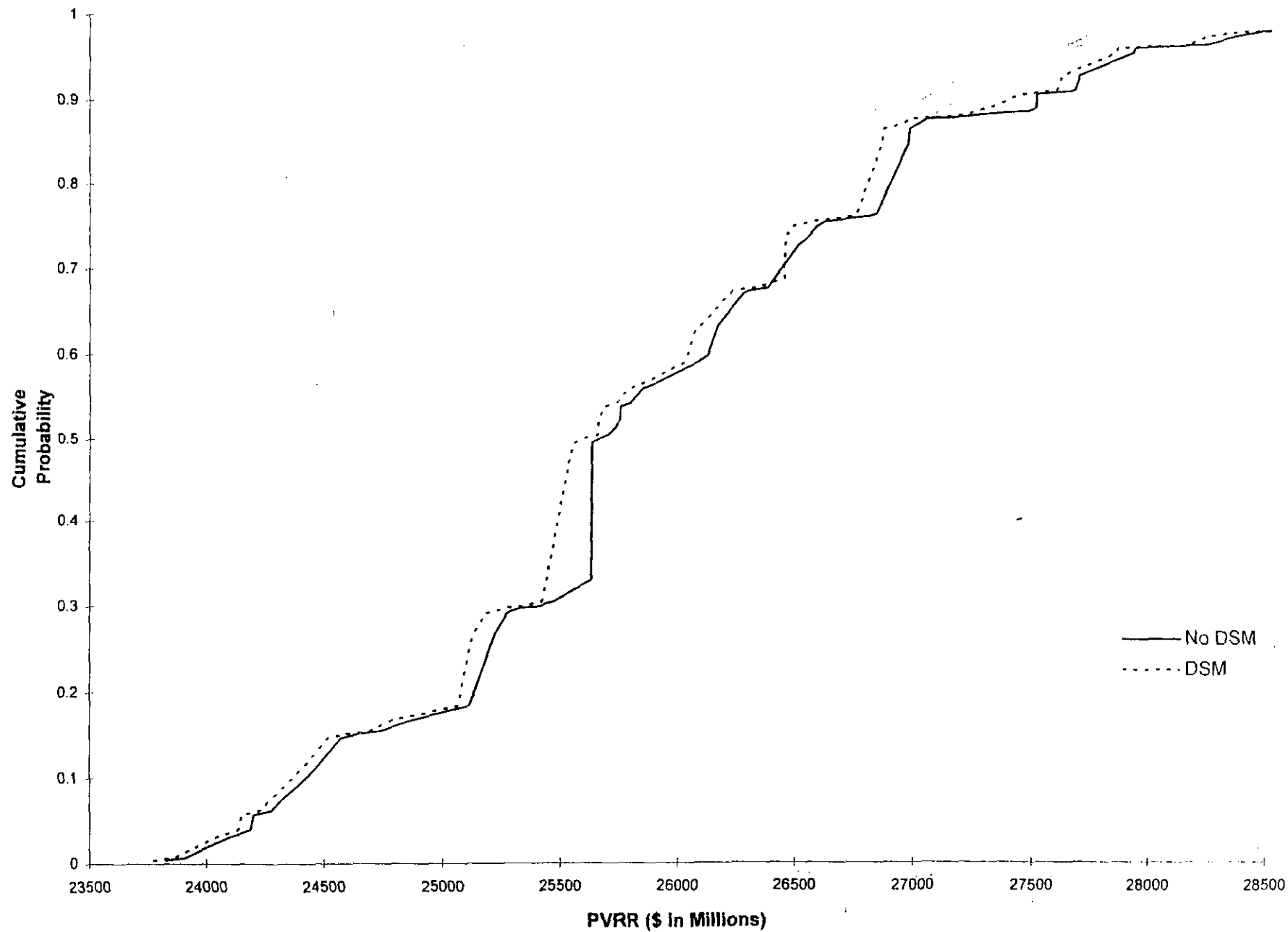
Utility Cost Risk Profile for DSM Decision



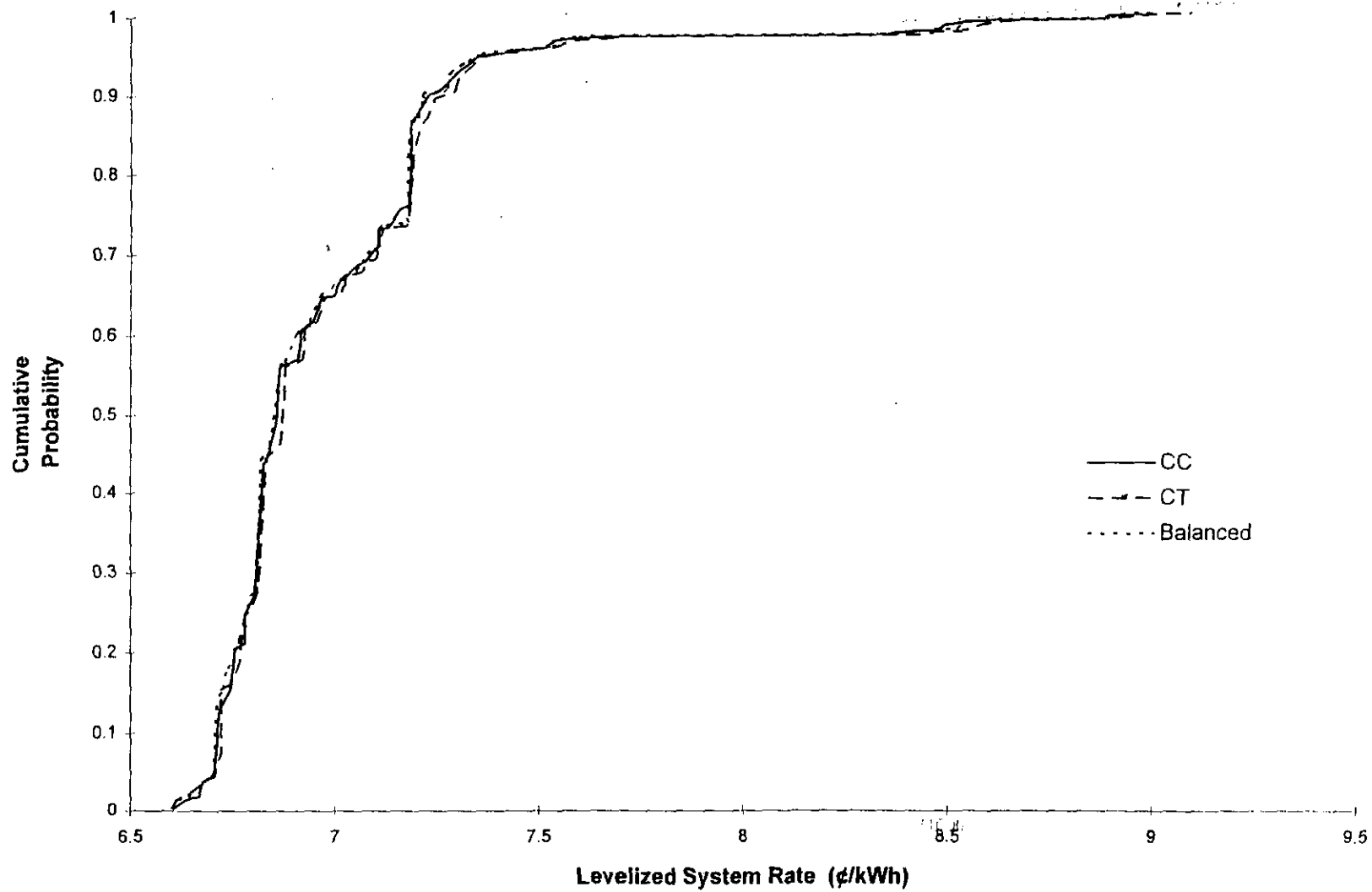
Total Resource Cost Risk Profile for DSM Decision



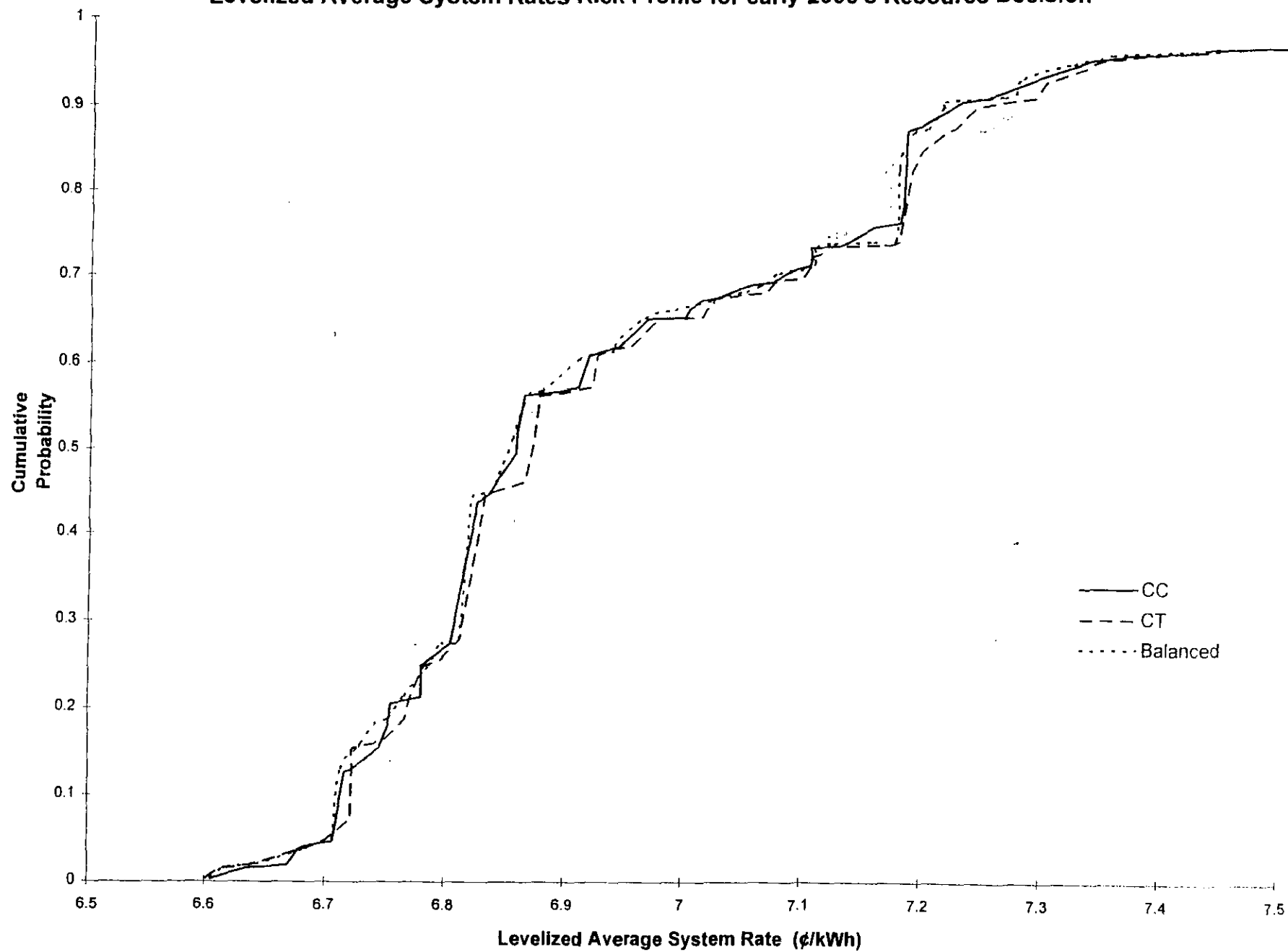
Total Resource Cost Risk Profile for DSM Decision



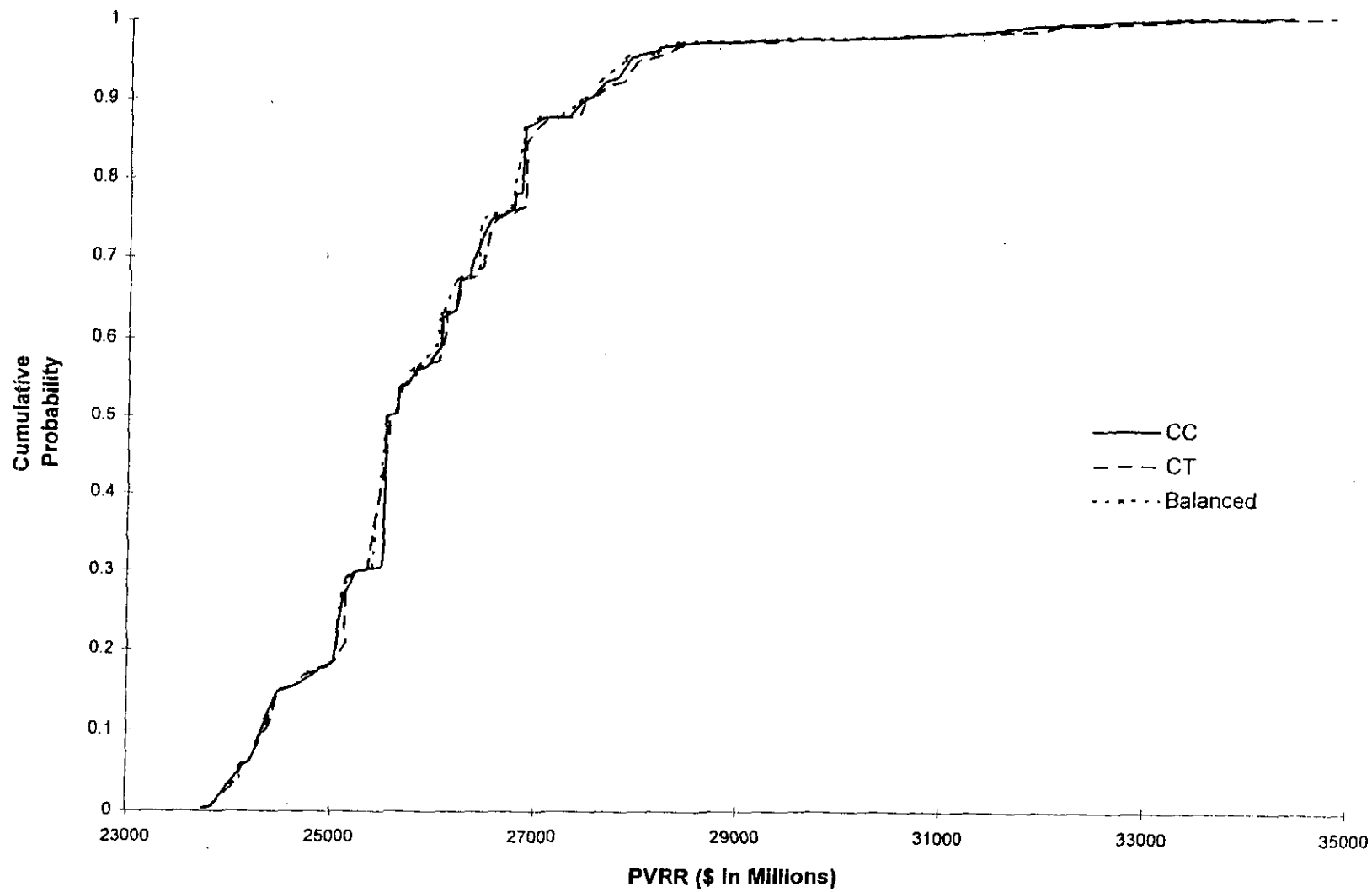
Levelized System Rates Risk Profile for 2002 Resource Decision



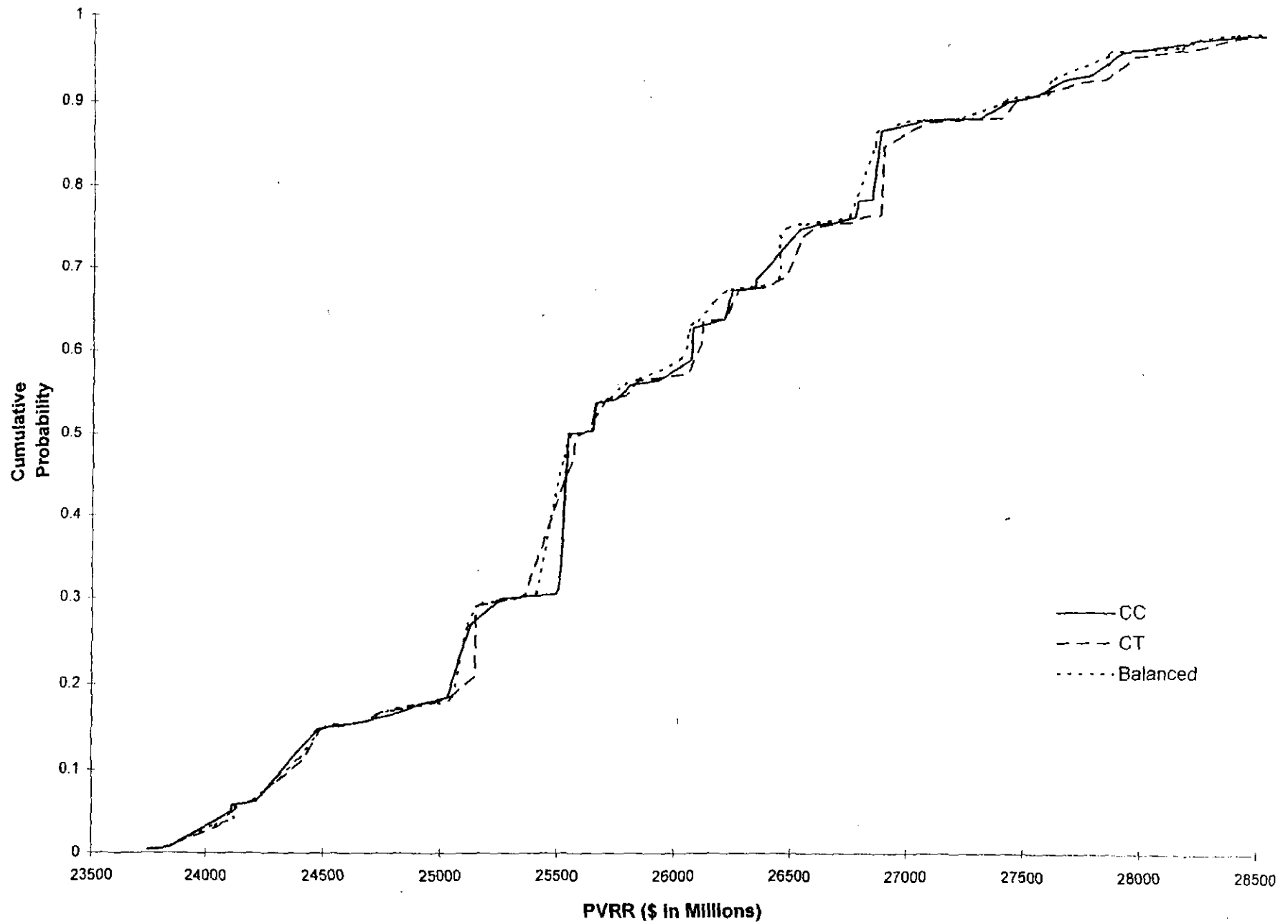
Levelized Average System Rates Risk Profile for early 2000's Resource Decision



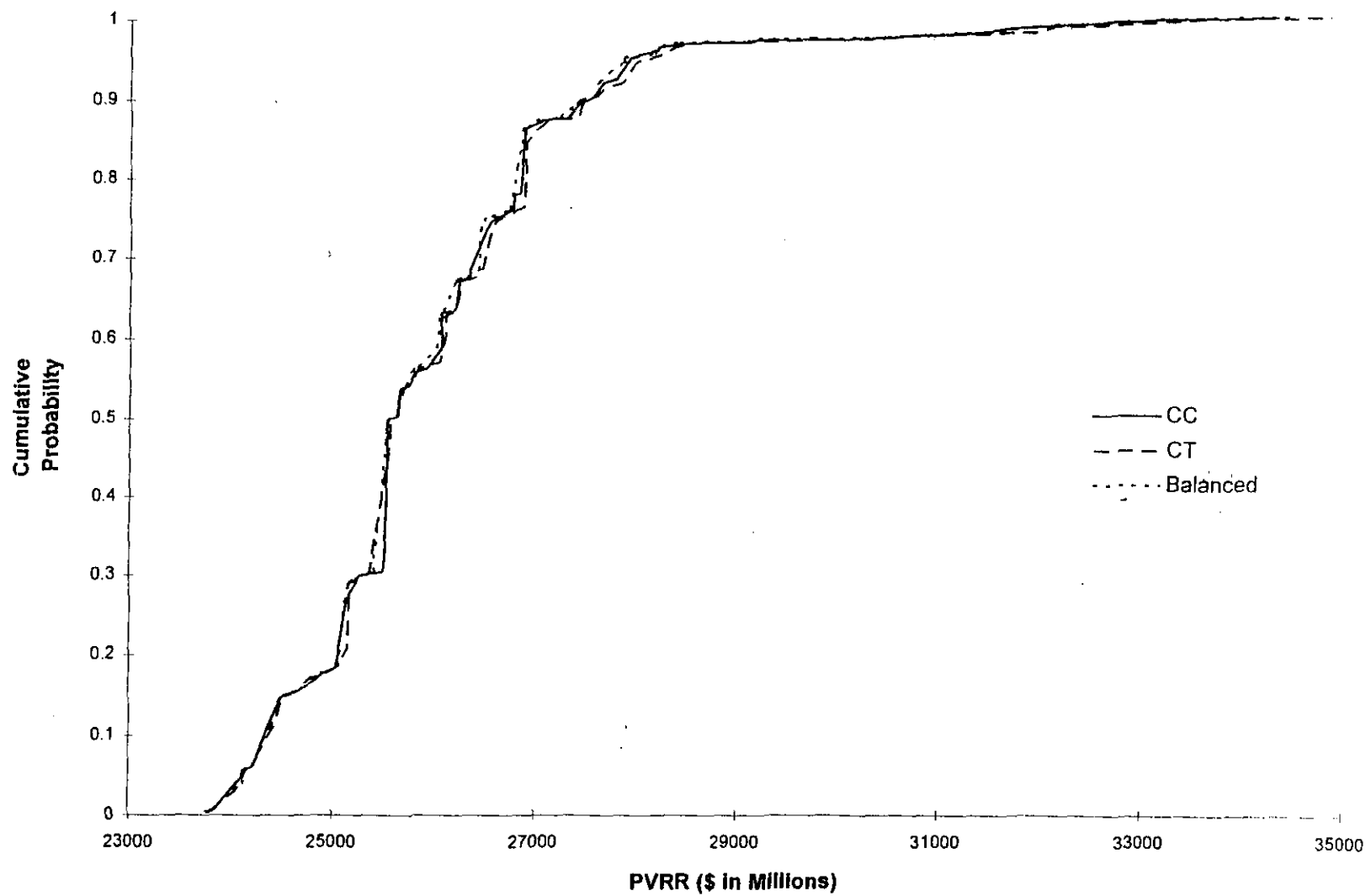
Utility Cost Risk Profile for 2002 Resource Decision



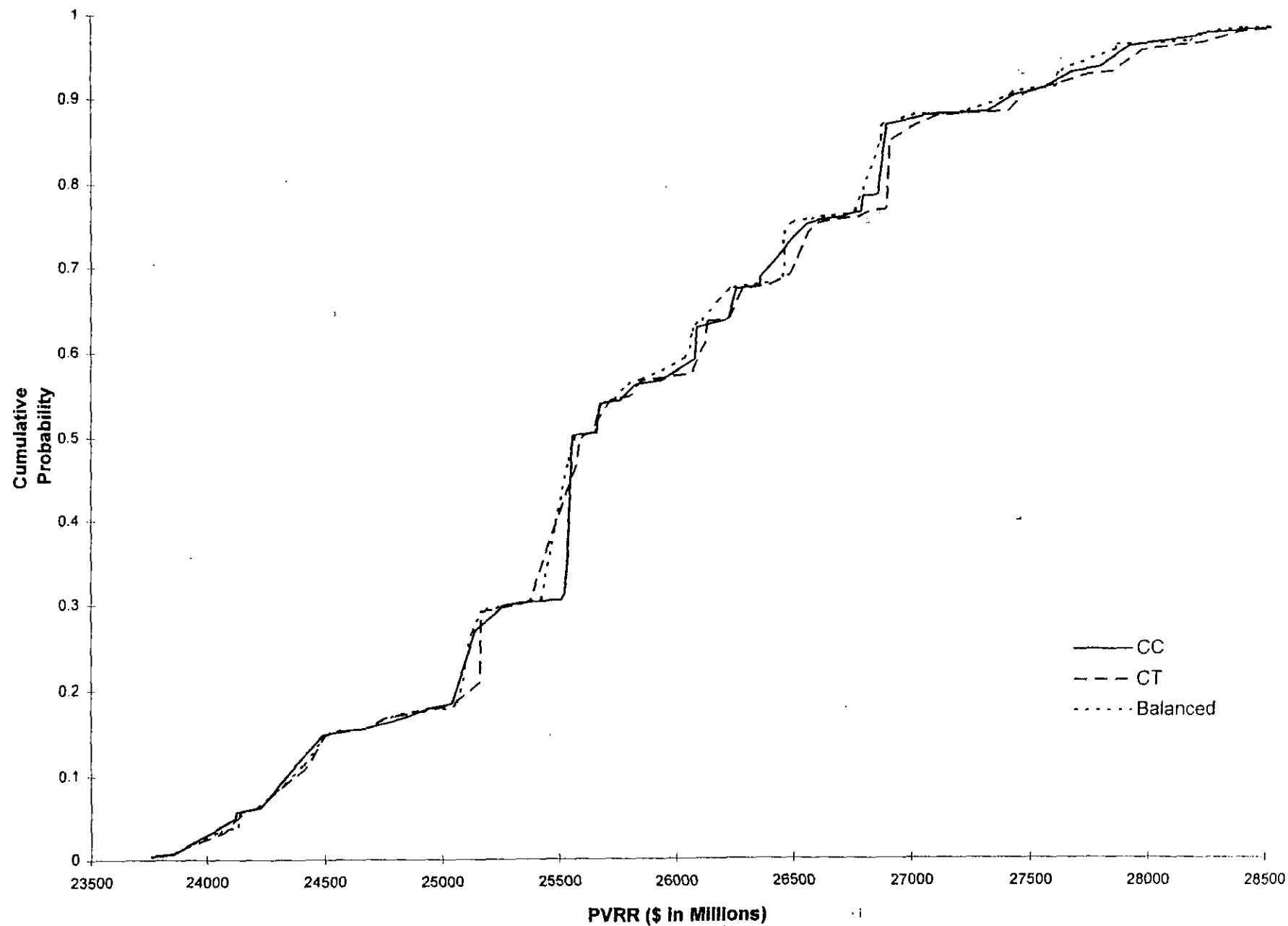
Utility Cost Risk Profile for early 2000's Resource Decision



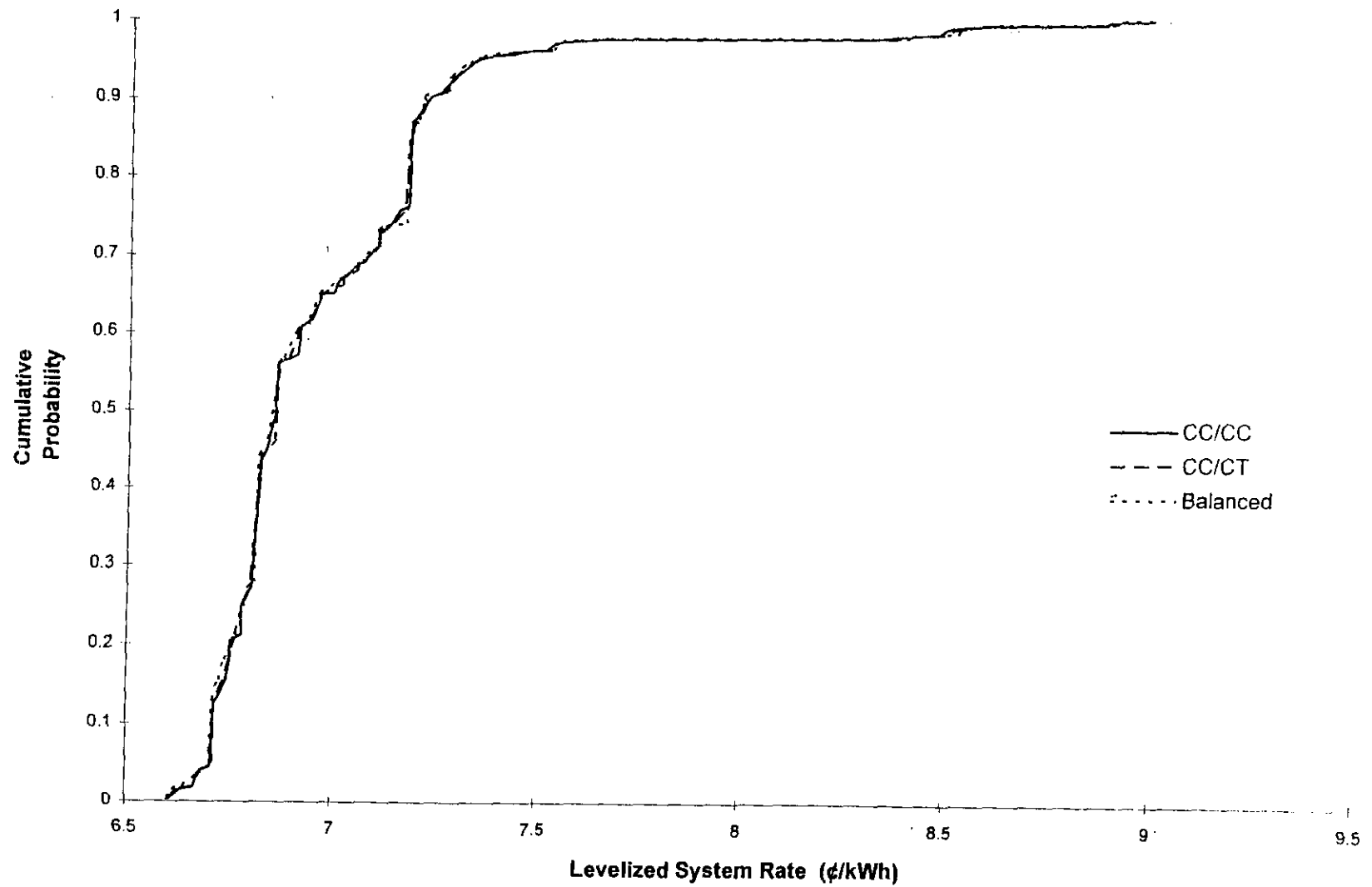
Total Resource Cost Risk Profile for 2002 Resource Decision



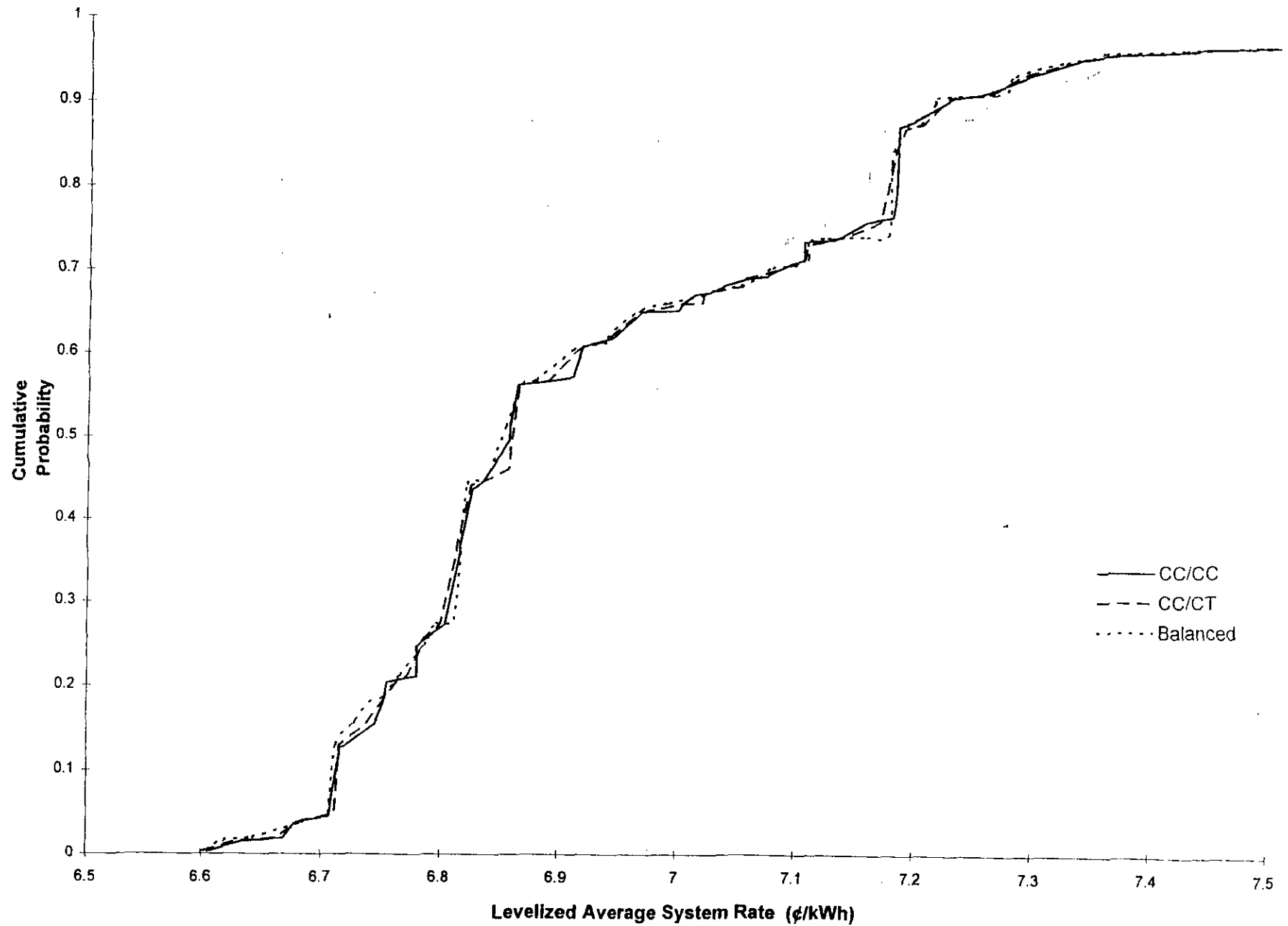
Total Resource Cost Risk Profile for early 2000's Resource Decision



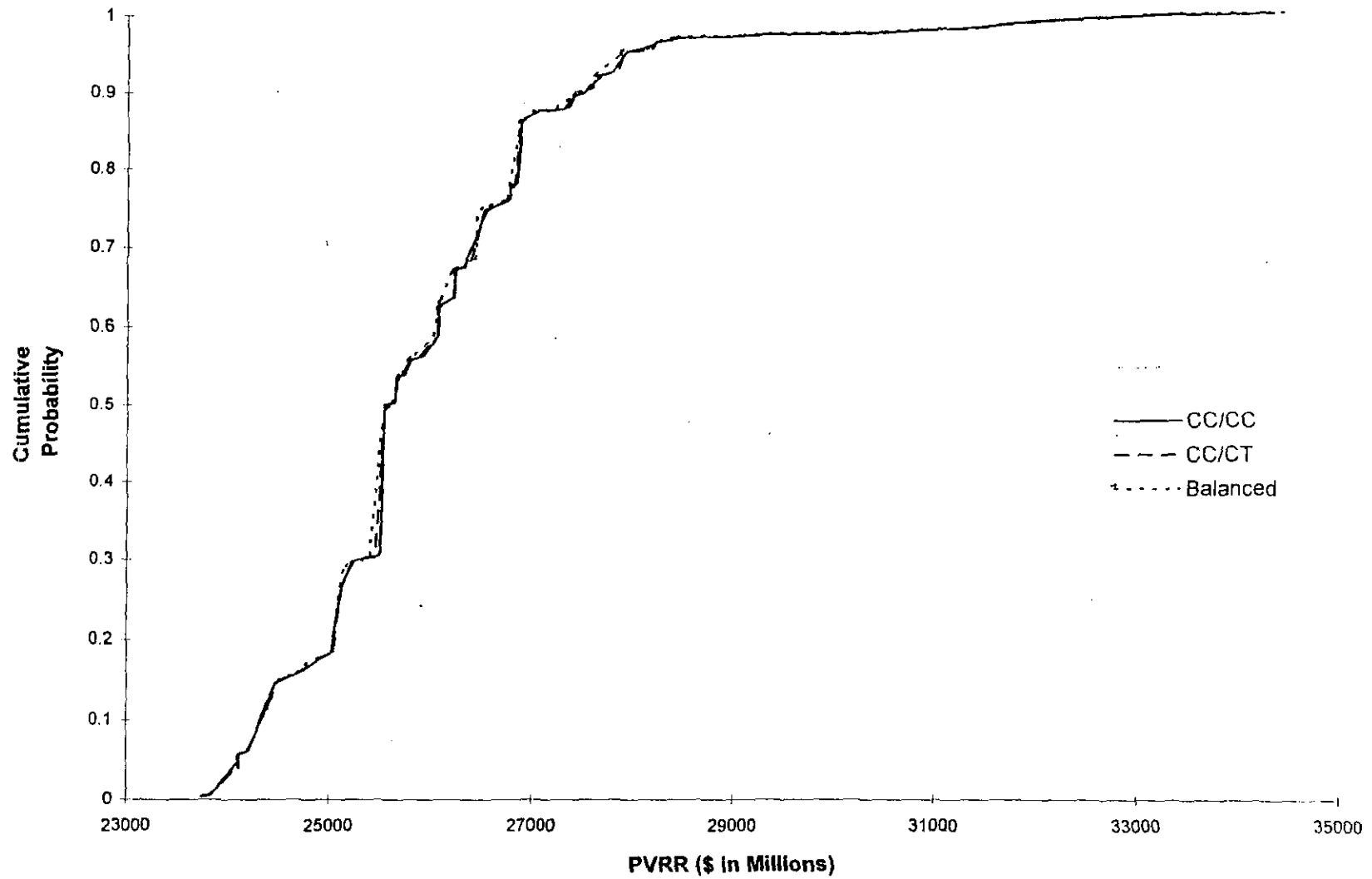
Levelized System Rates Risk Profile for 2008 Resource Decision



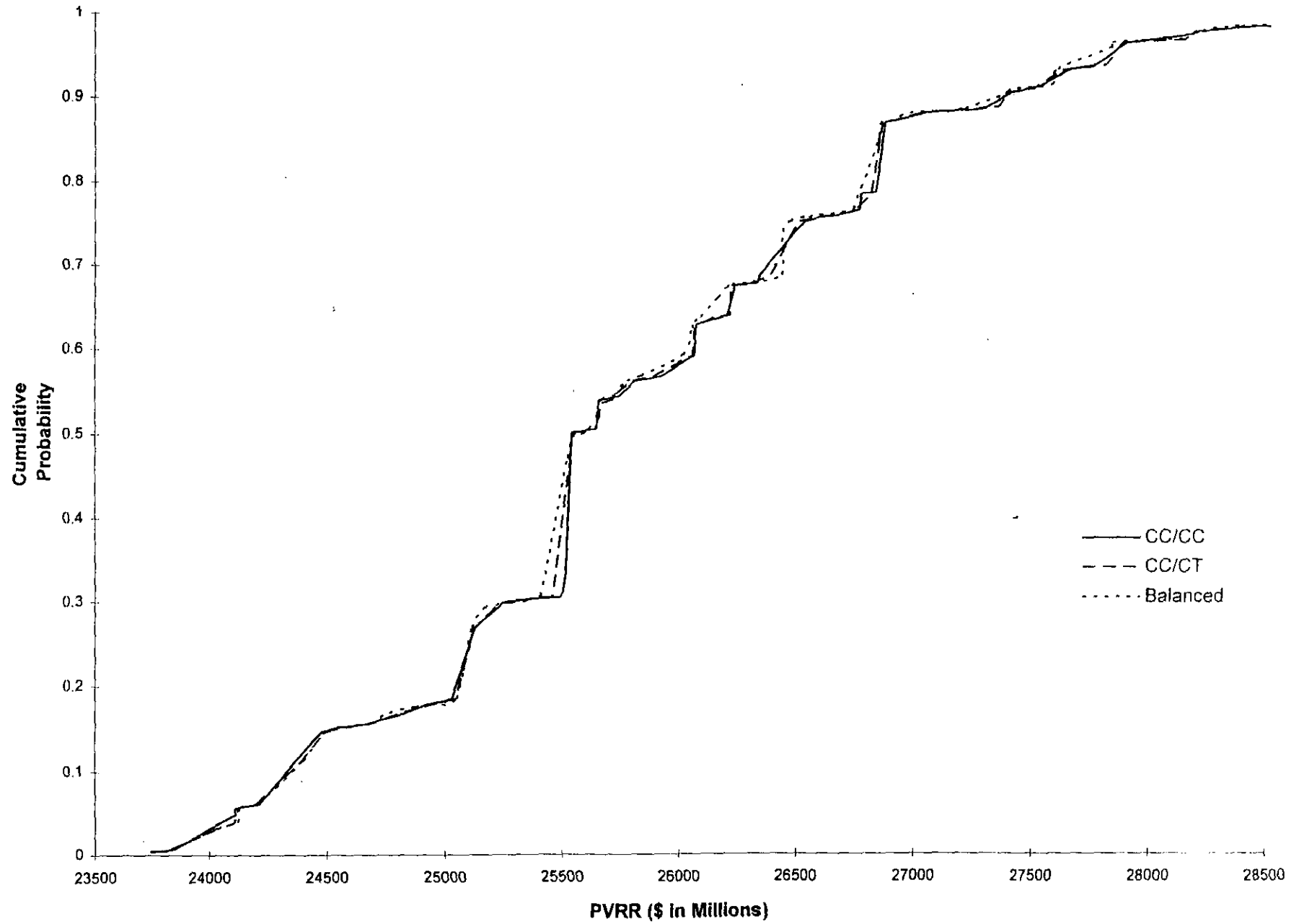
Levelized Average System Rates Risk Profile for 2008 Resource Decision



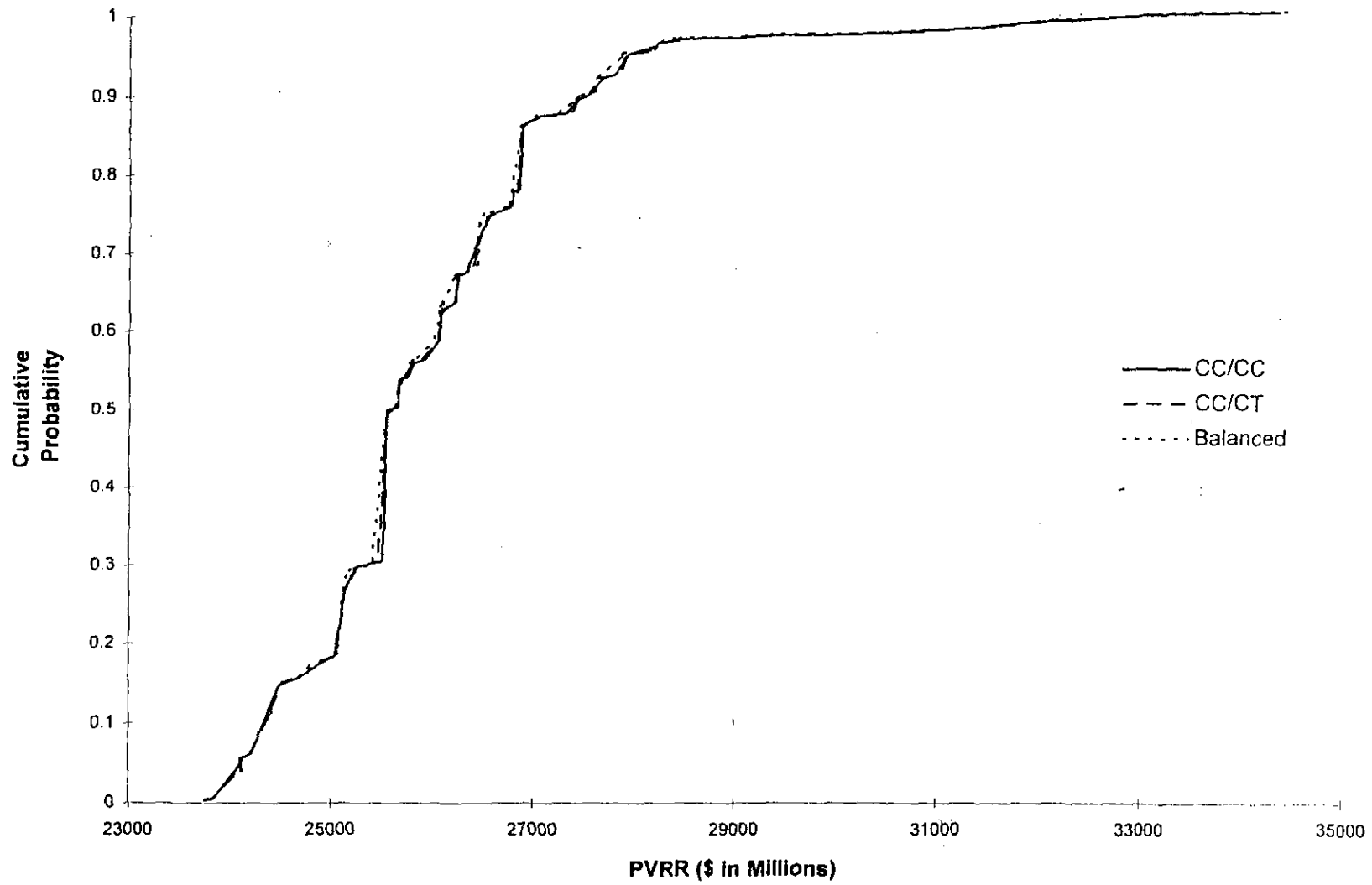
Utility Cost Risk Profile for 2008 Resource Decision



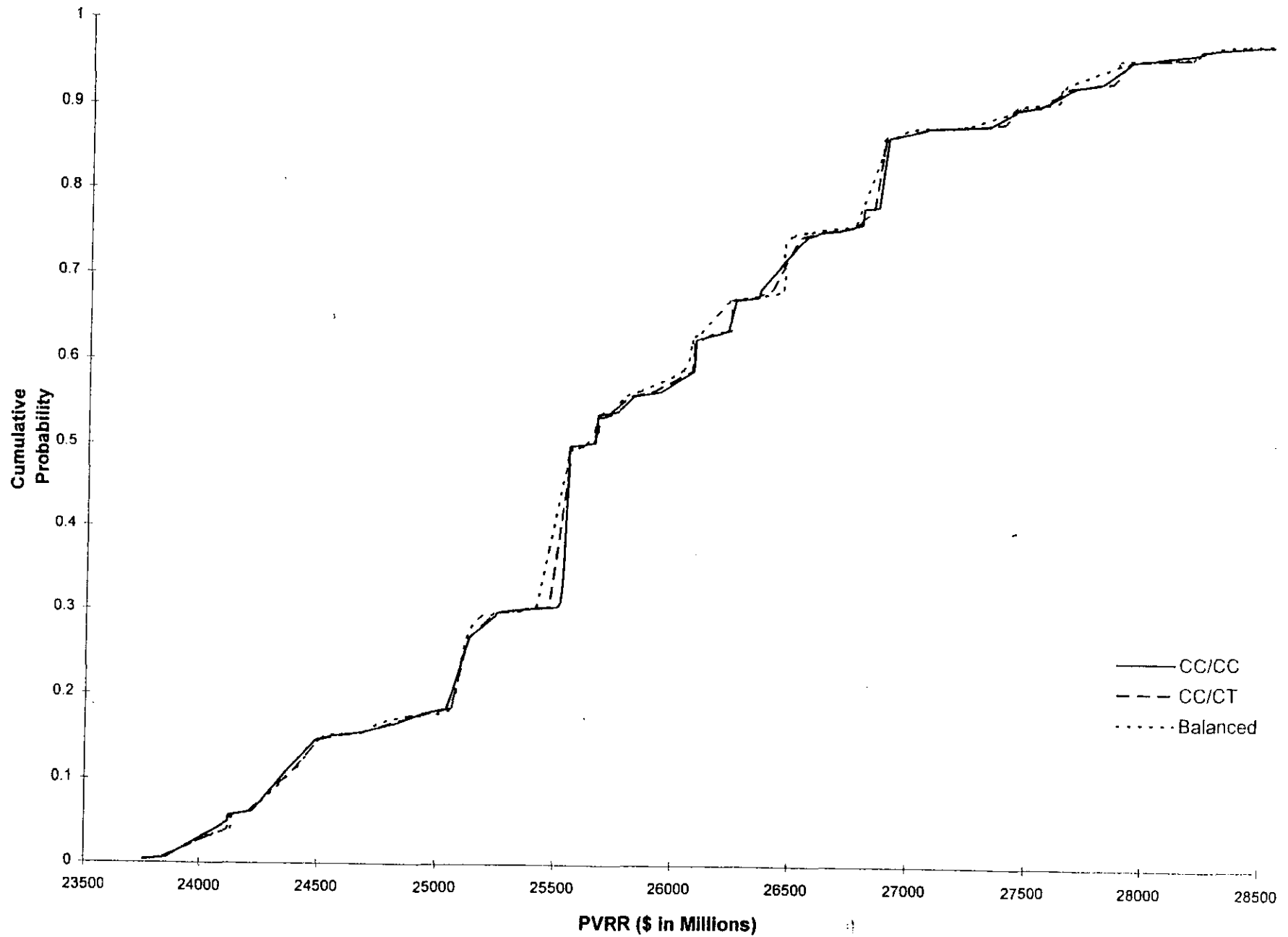
Utility Cost Risk Profile for 2008 Resource Decision



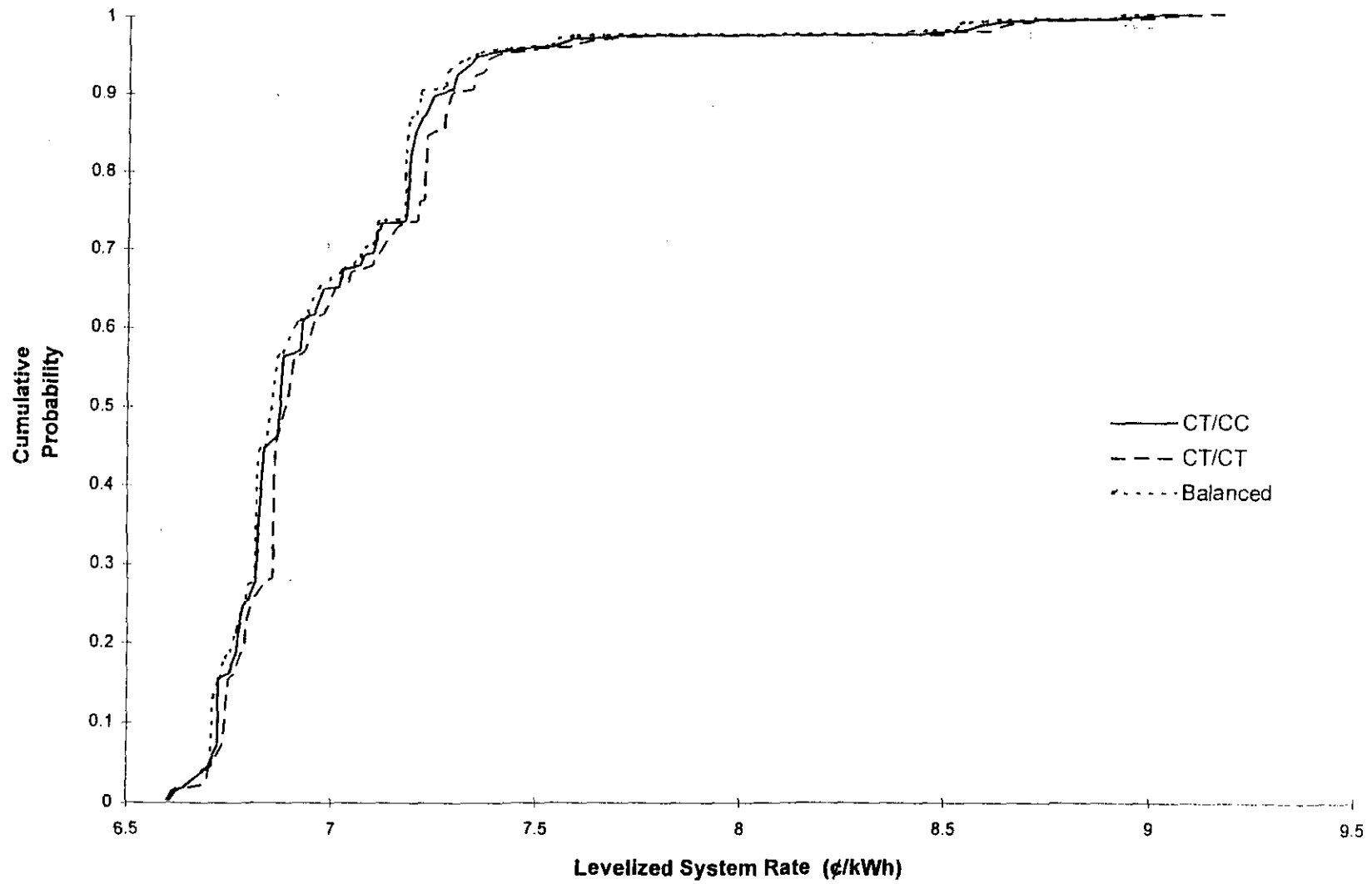
Total Resource Cost Risk Profile for 2008 Resource Decision



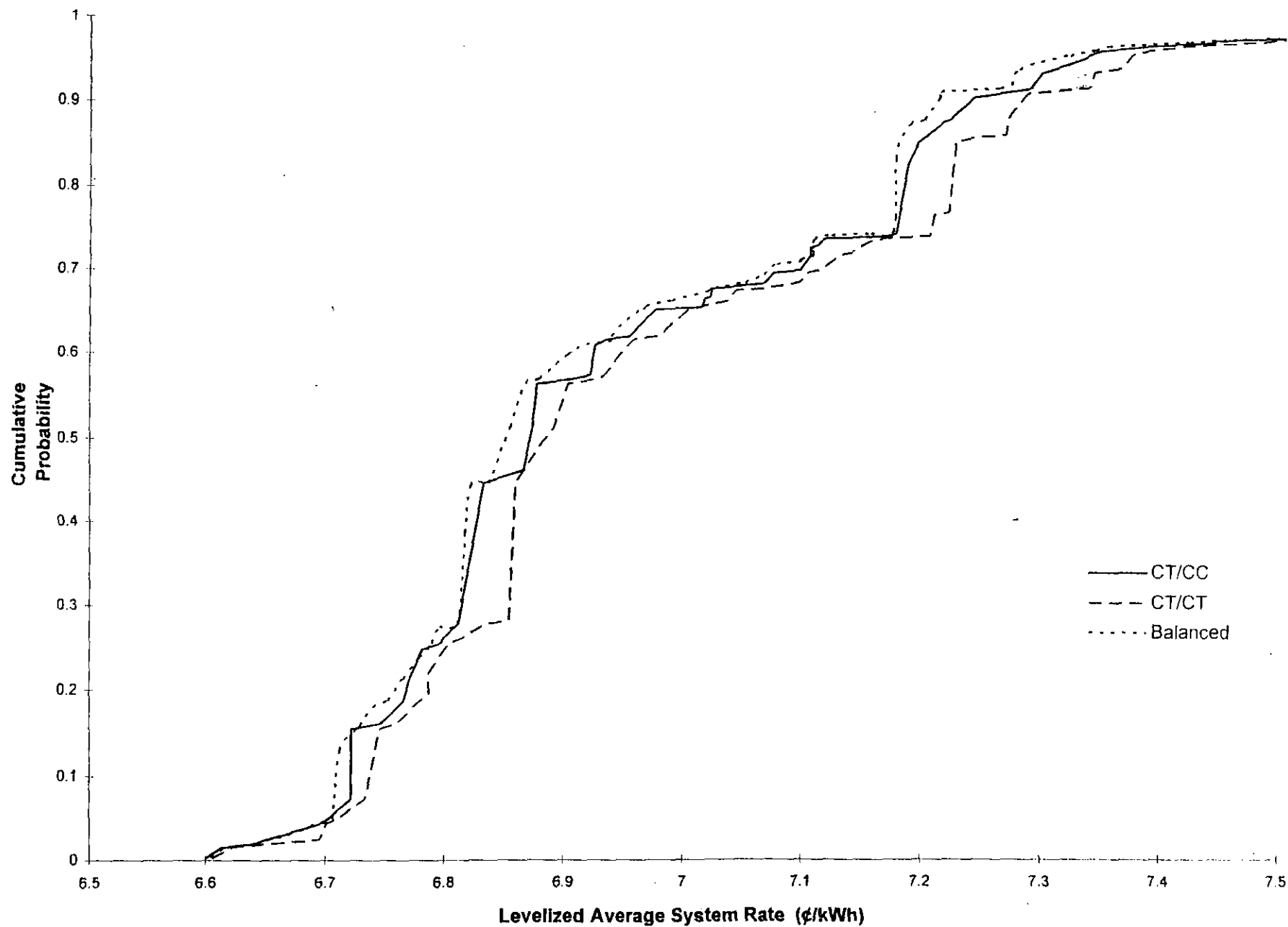
Total Resource Cost Risk Profile for 2008 Resource Decision



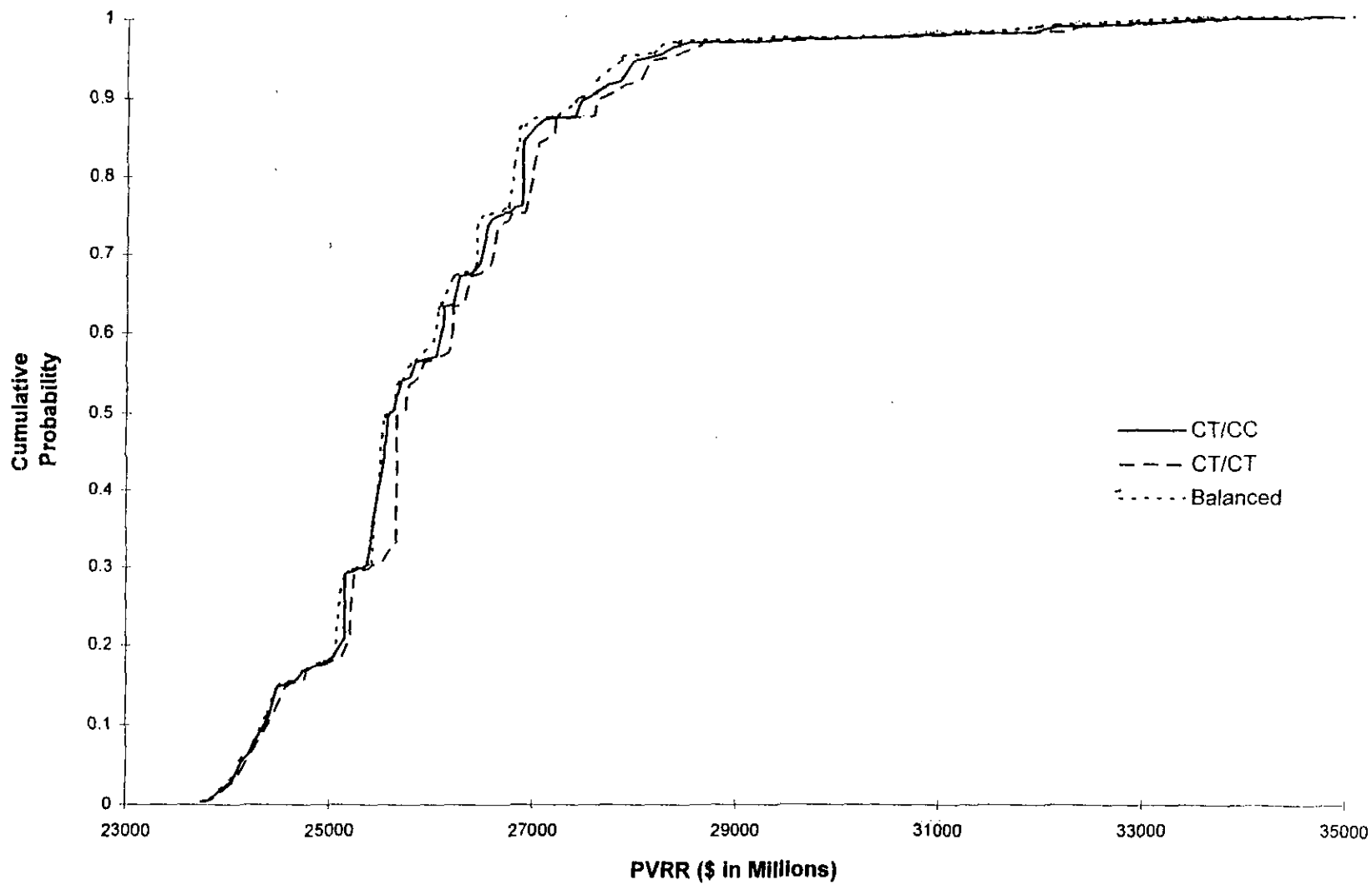
Levelized System Rates Risk Profile for 2008 Resource Decision



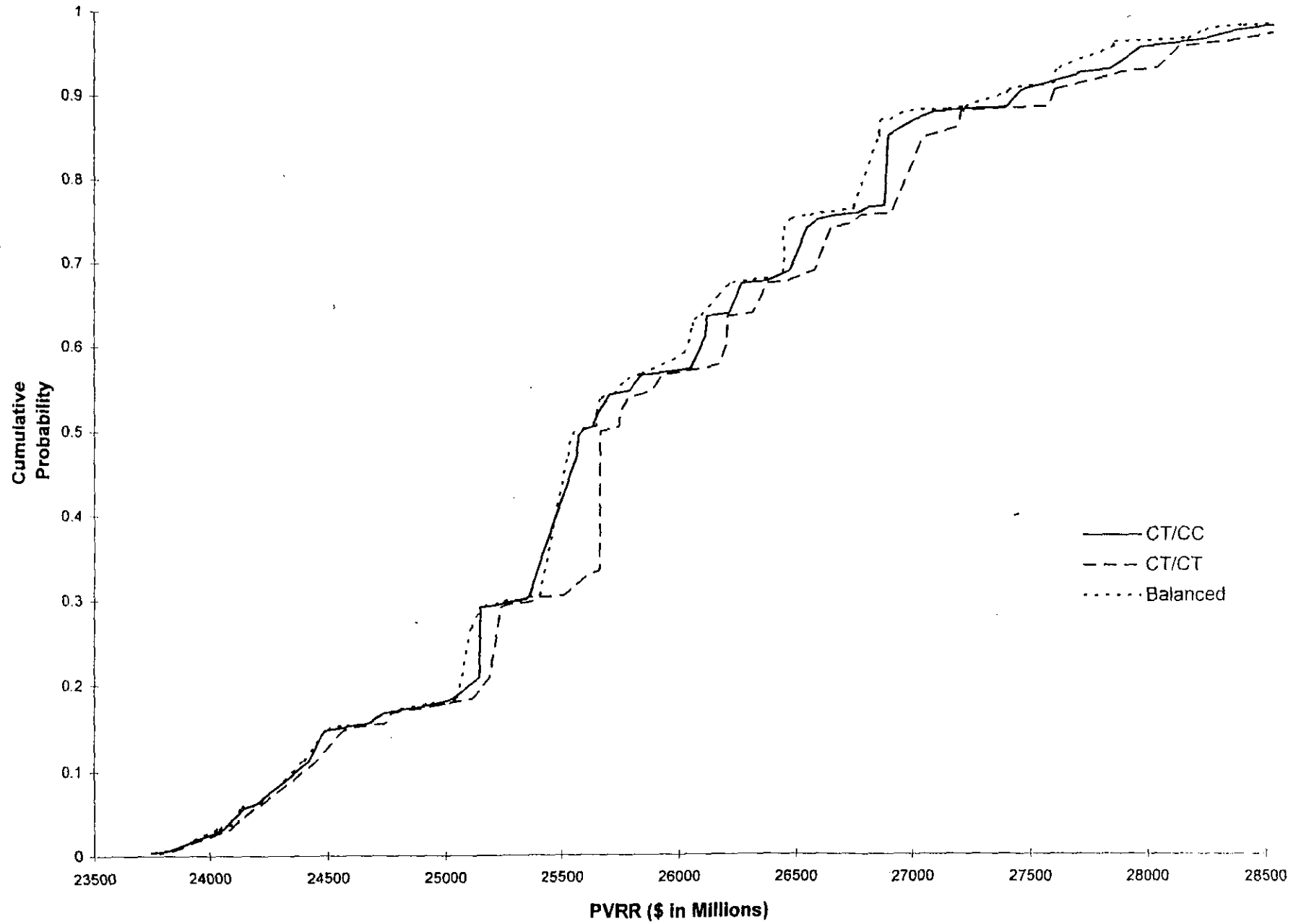
Levelized Average System Rates Risk Profile for 2008 Resource Decision



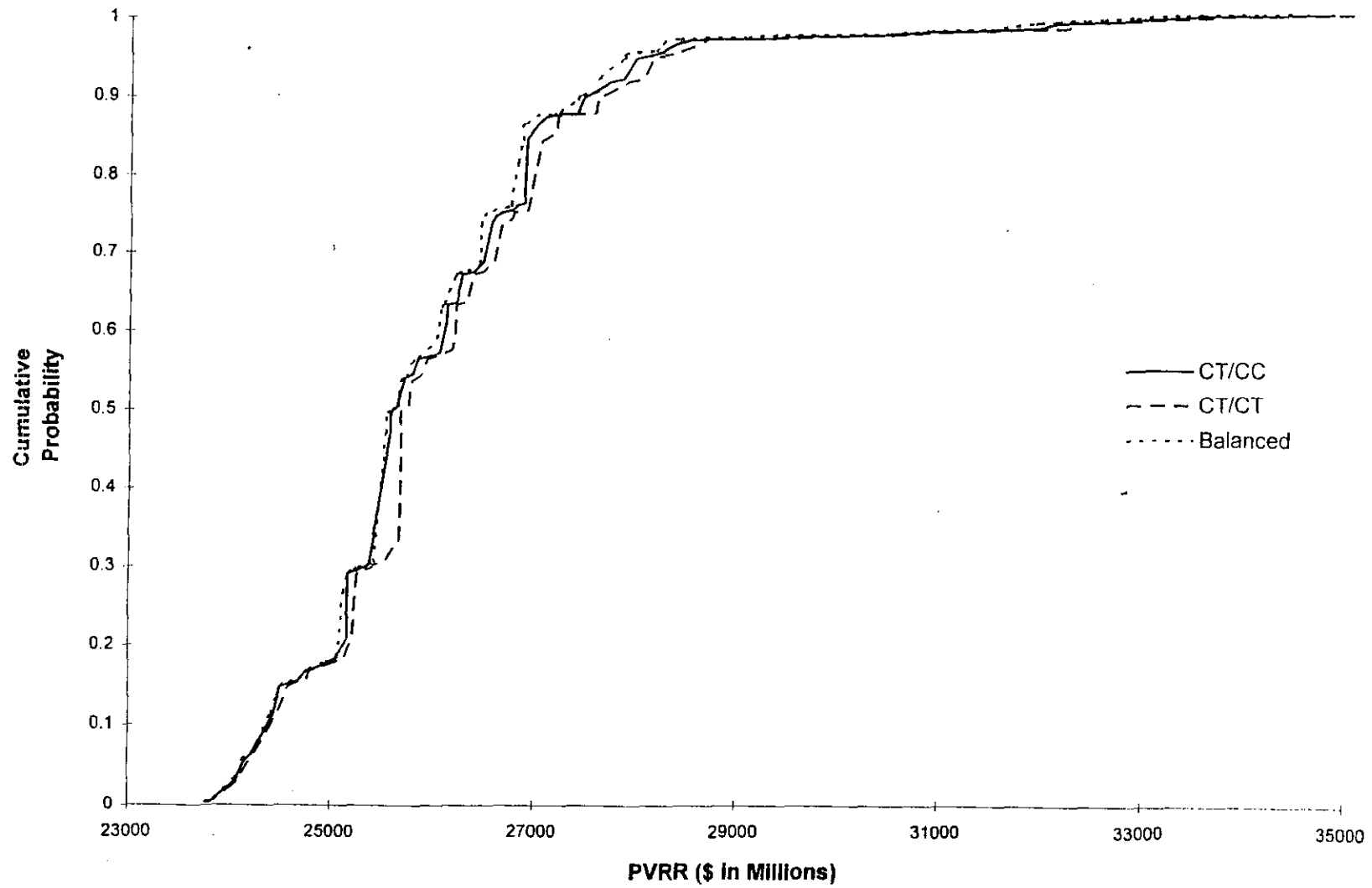
Utility Cost Risk Profile for 2008 Resource Decision



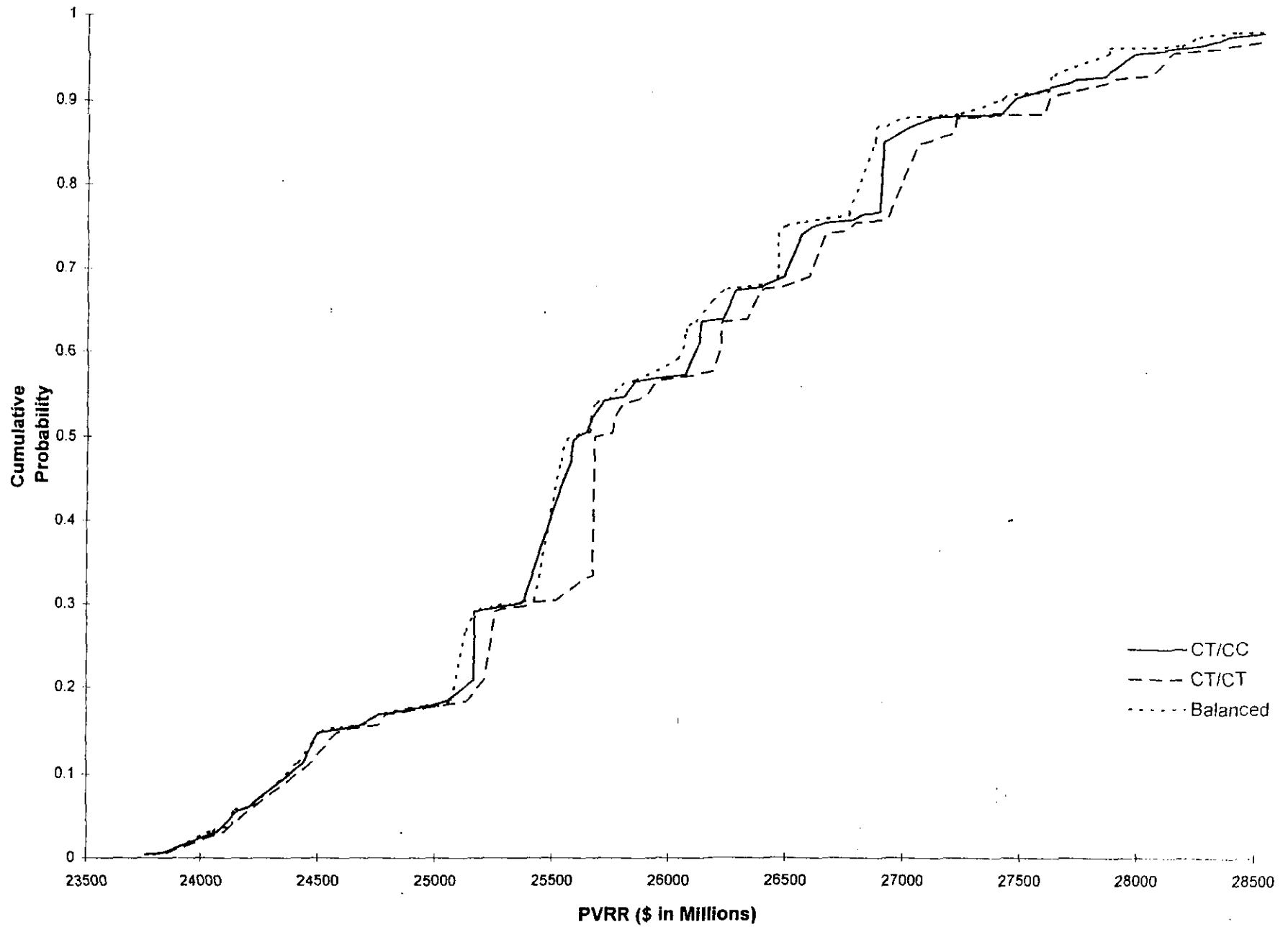
Utility Cost Risk Profile for 2008 Resource Decision



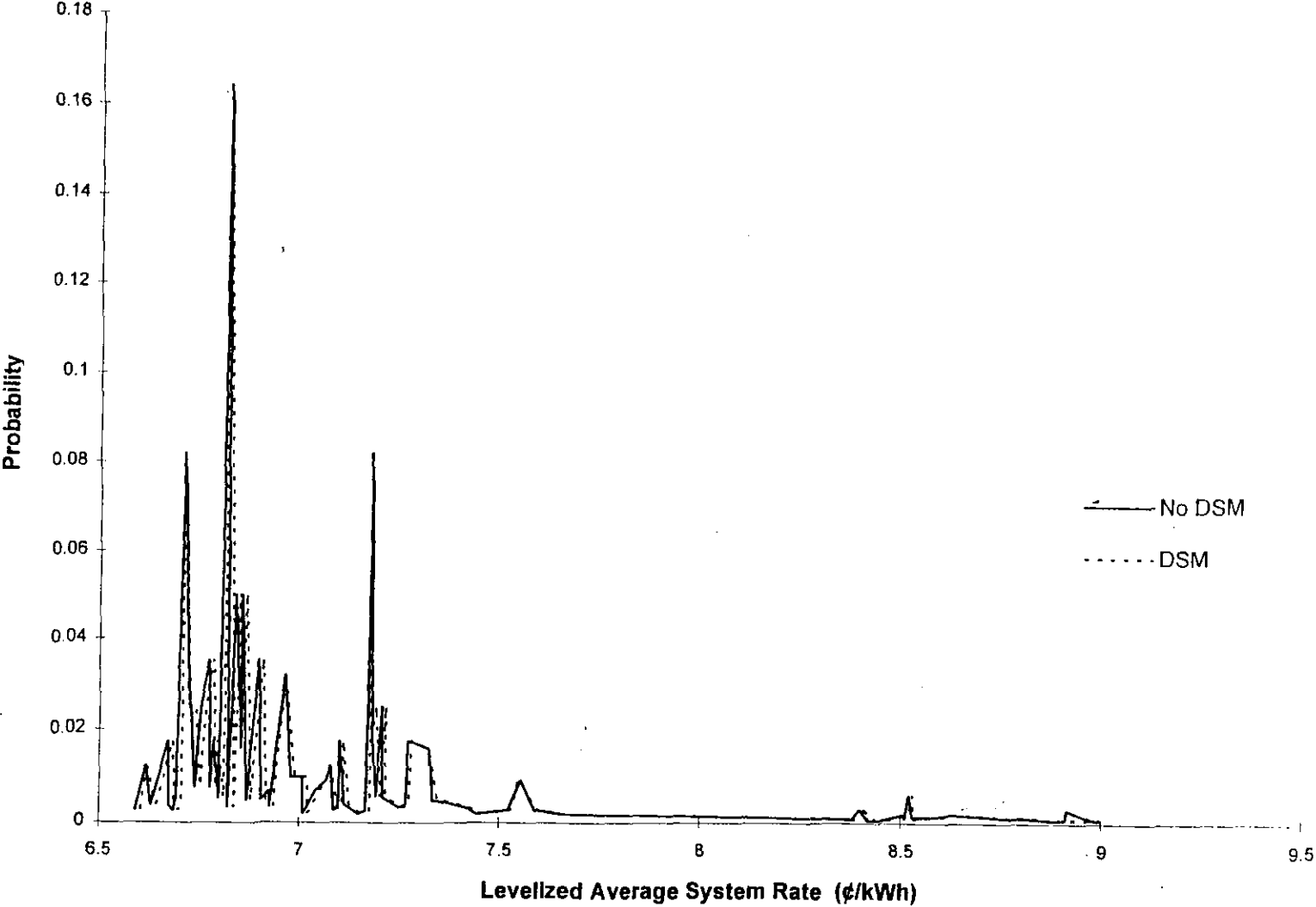
Total Resource Cost Risk Profile for 2008 Resource Decision



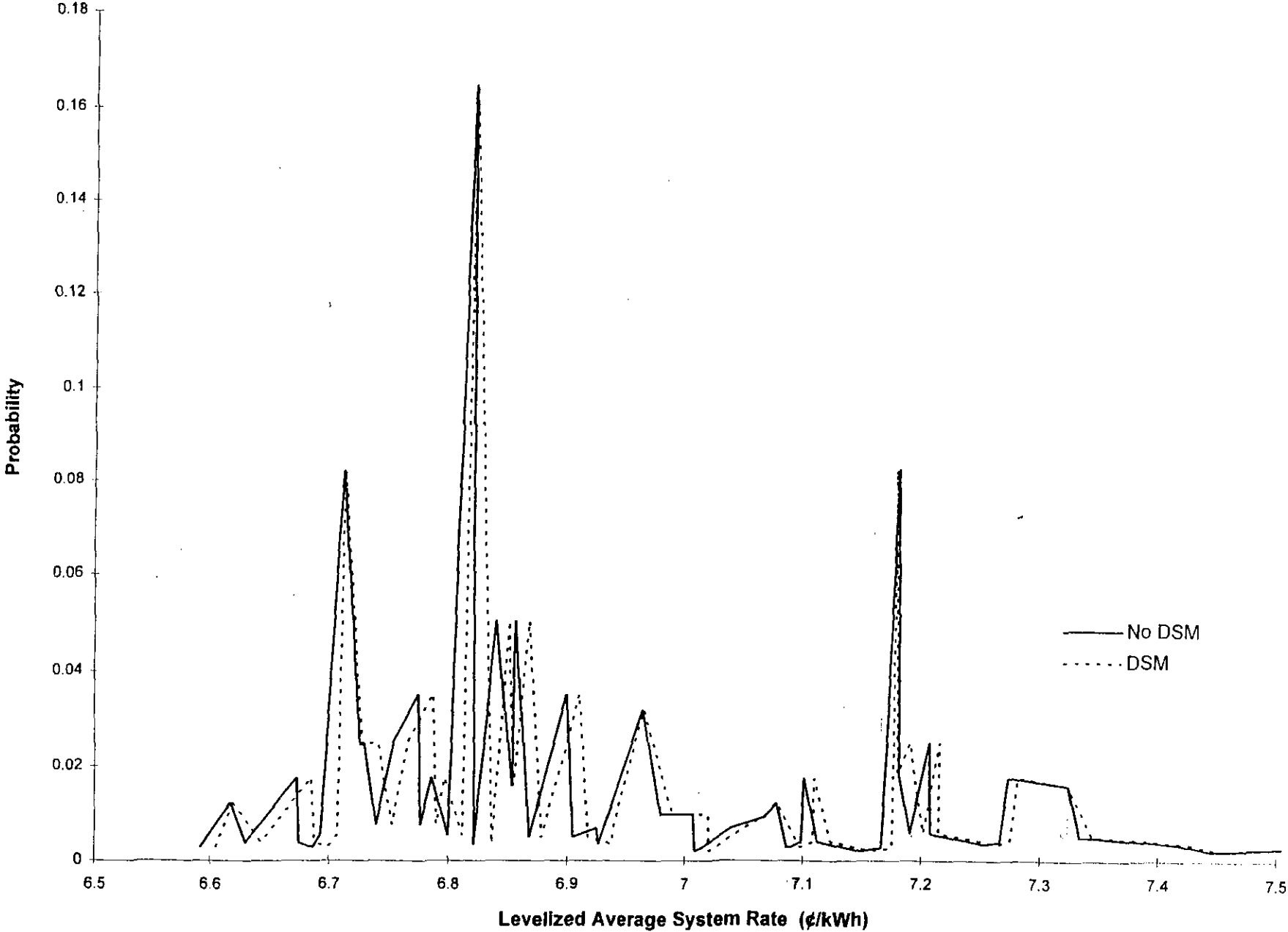
Total Resource Cost Risk Profile for 2008 Resource Decision



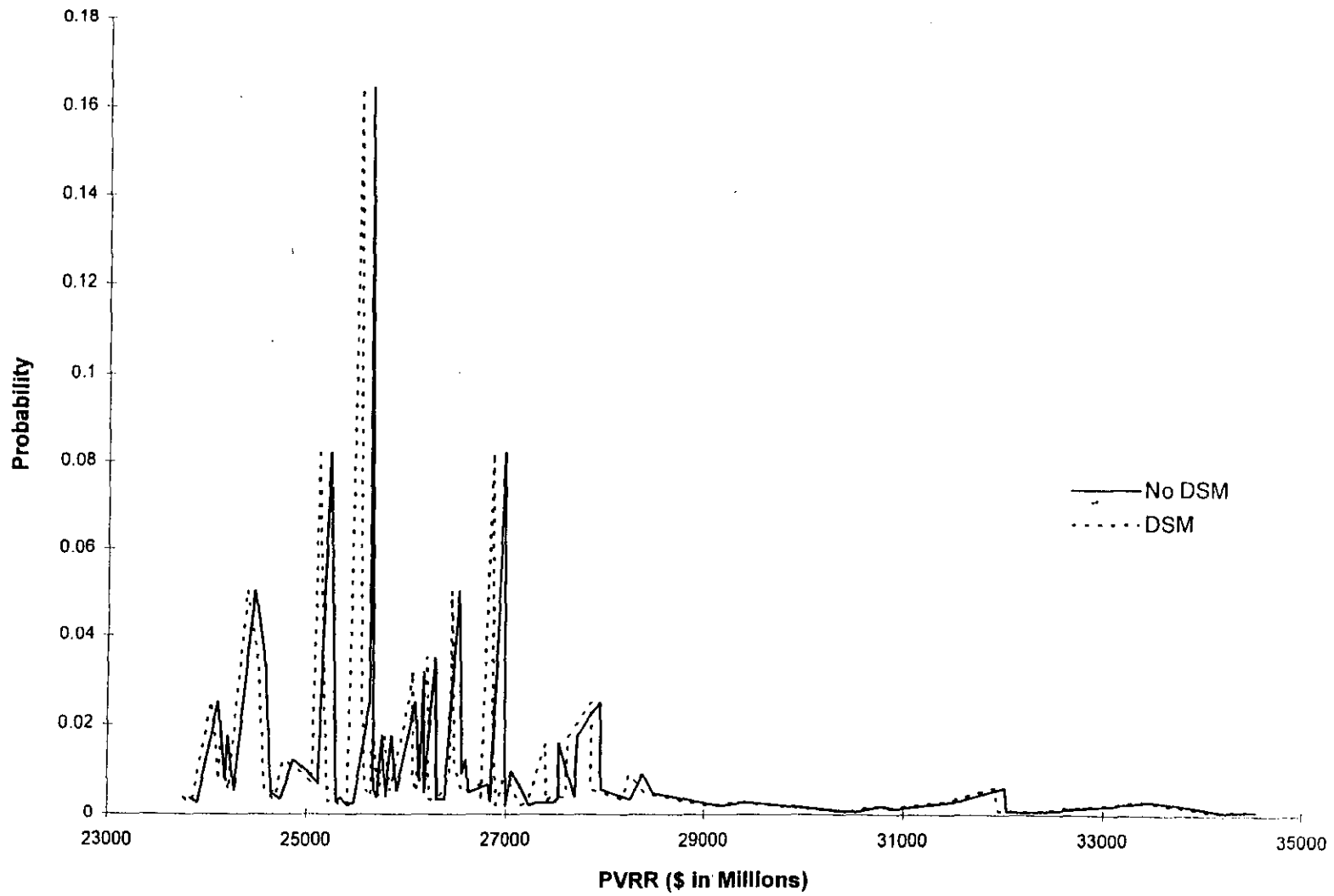
Levelized Average System Rates Histogram for DSM Decision



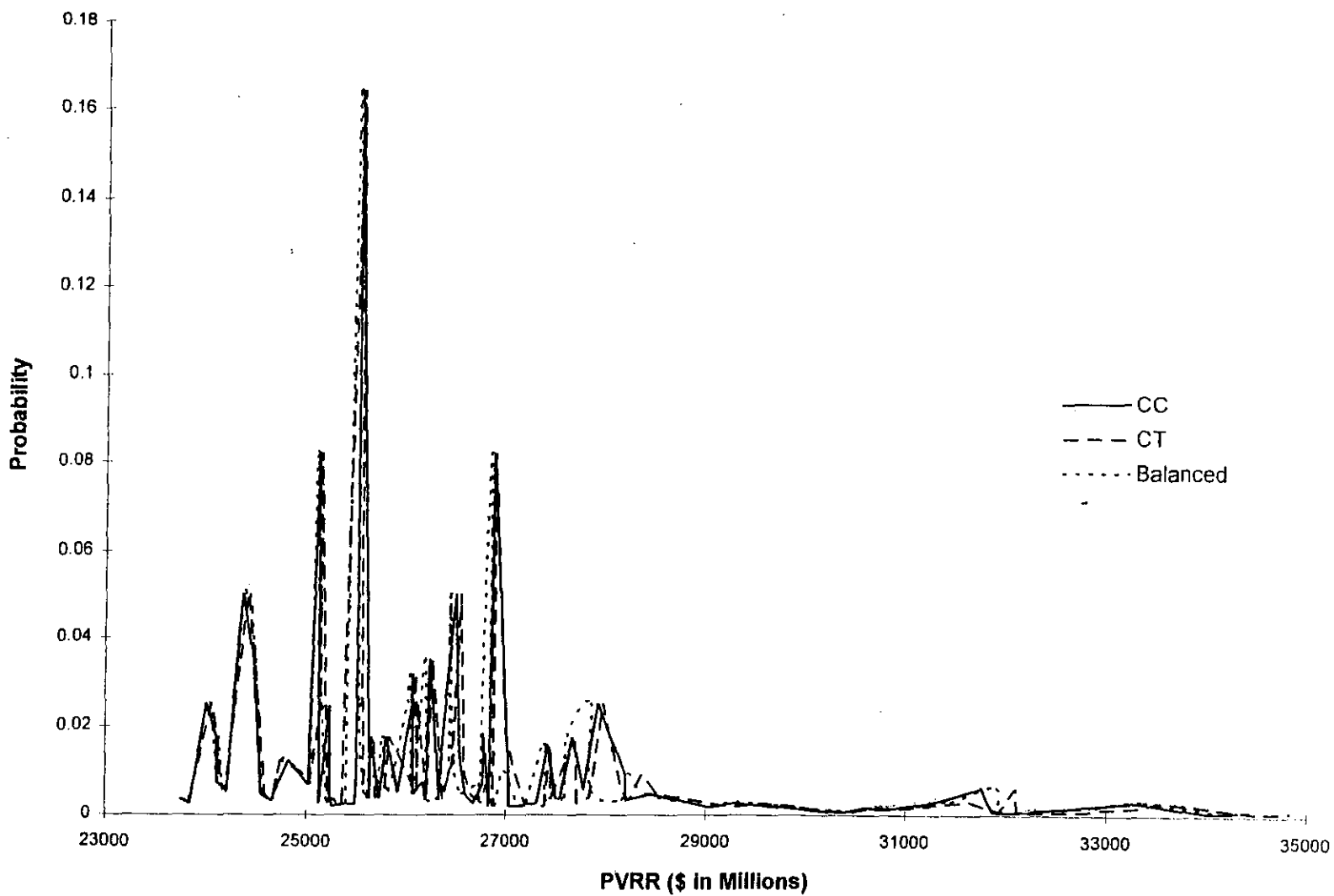
Levelized Average System Rates Histogram for DSM Decision



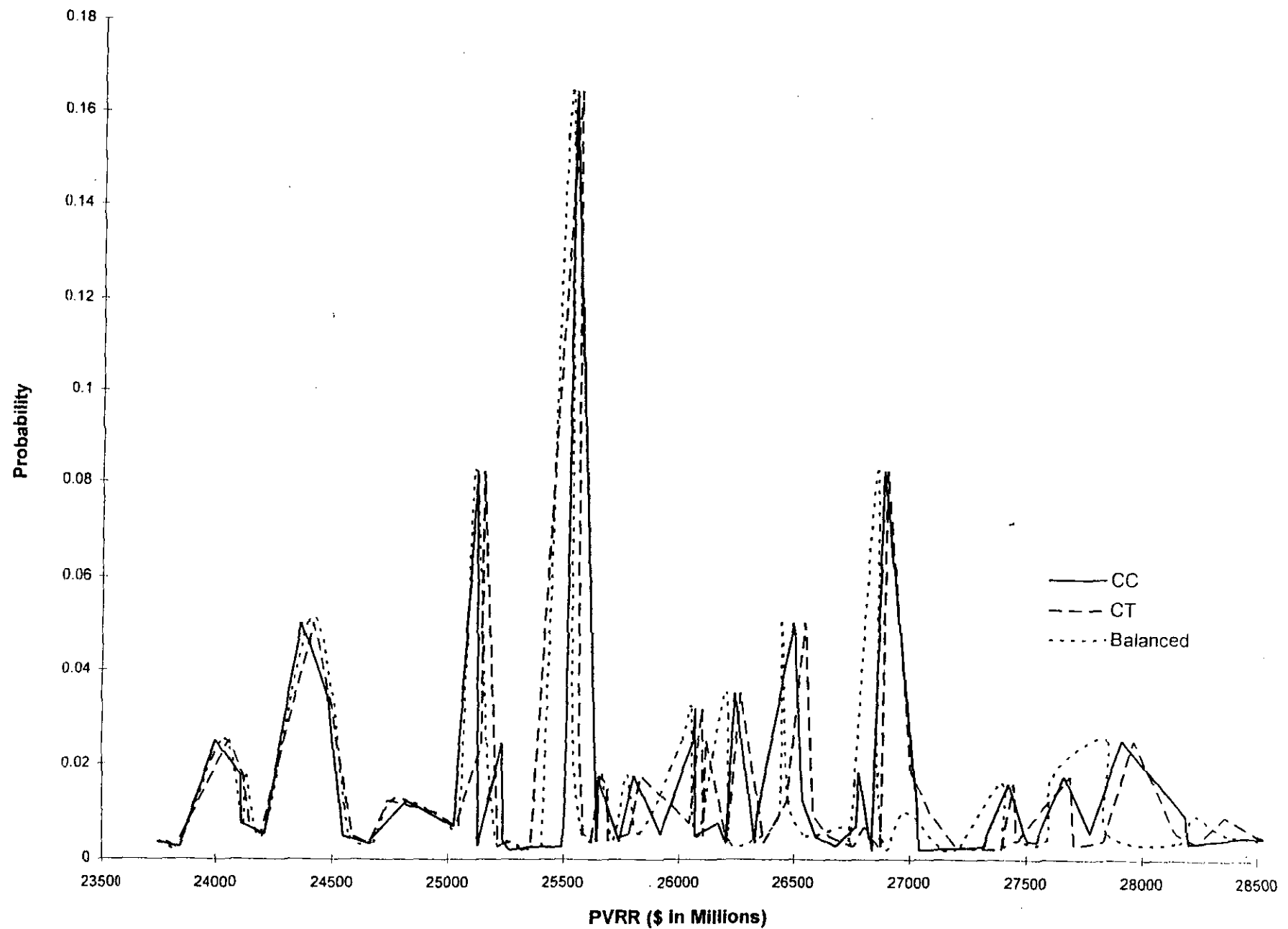
Utility Cost Histogram for DSM Decision



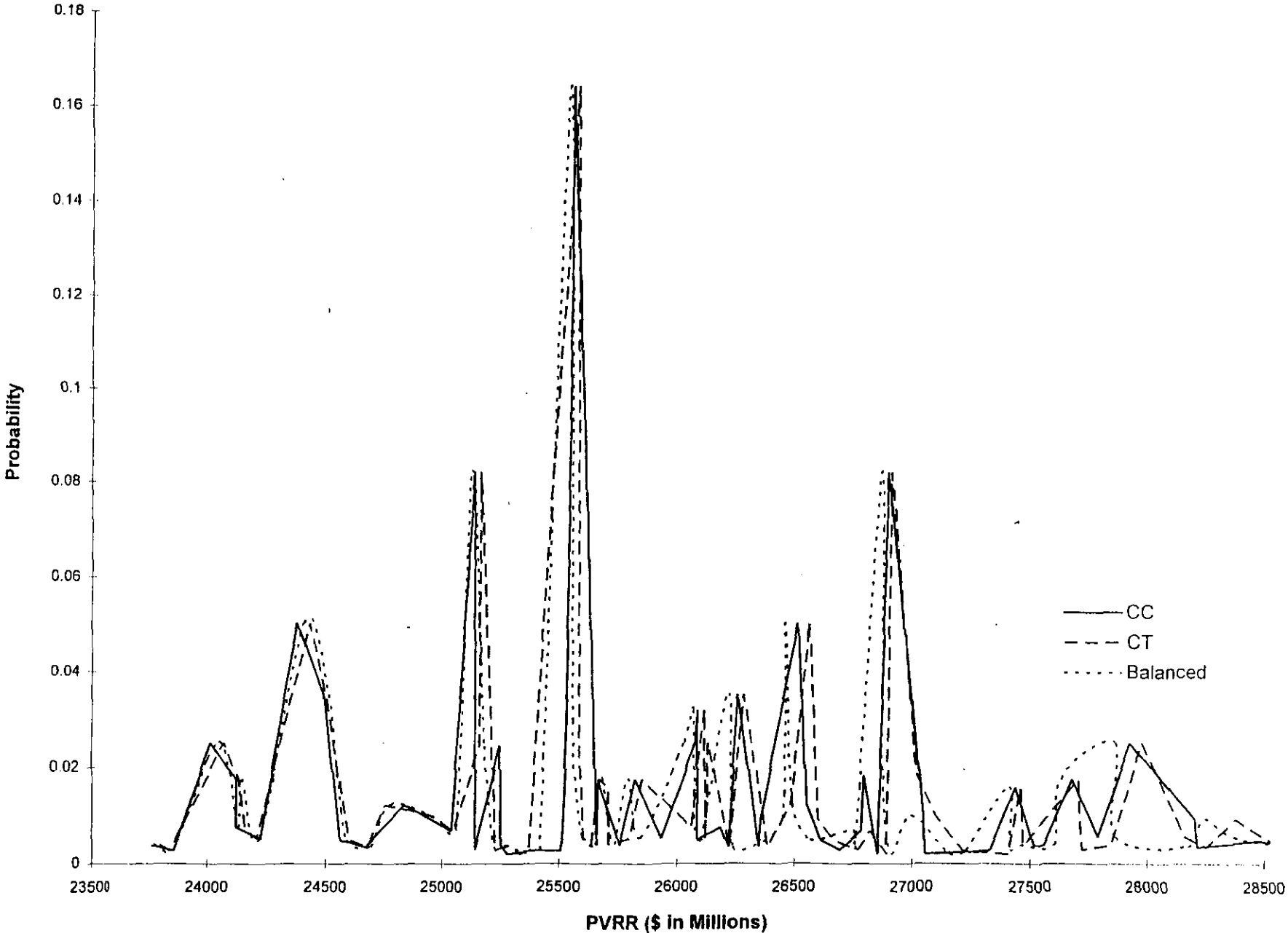
Utility Cost Histogram for 2002 Resource Decision



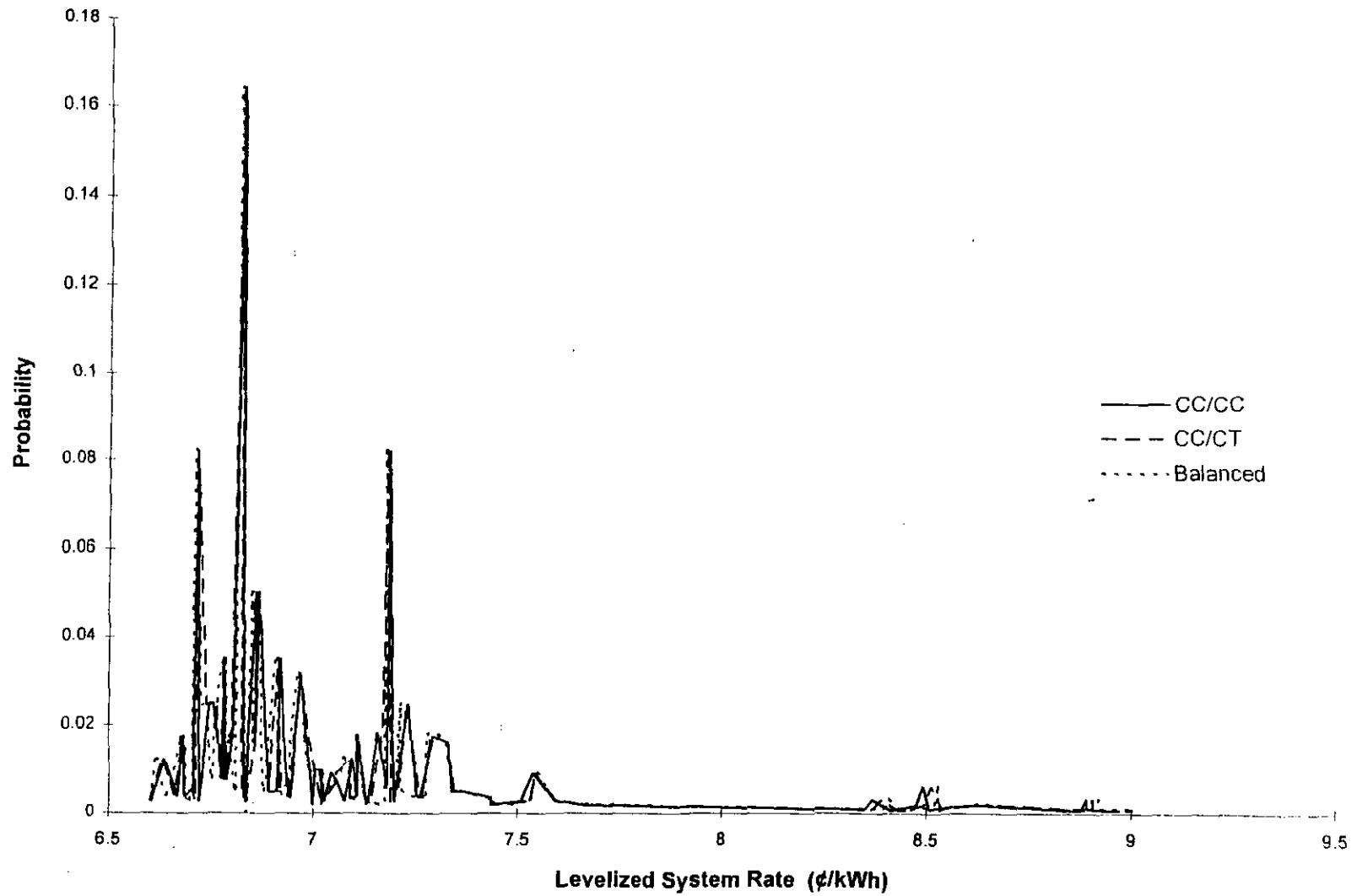
Utility Cost Histogram for early 2000's Resource Decision



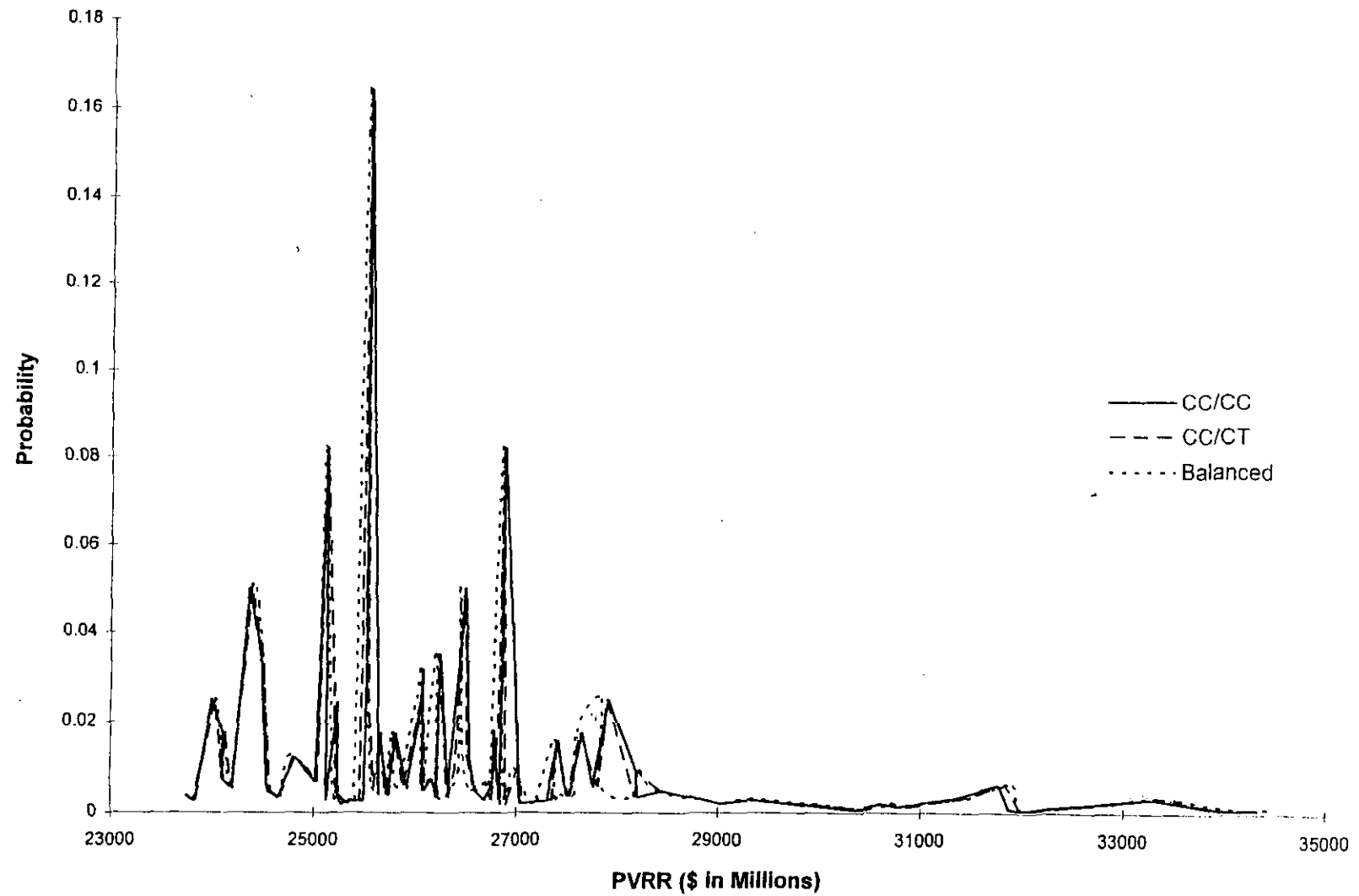
Total Resource Cost Histogram for early 2000's Resource Decision



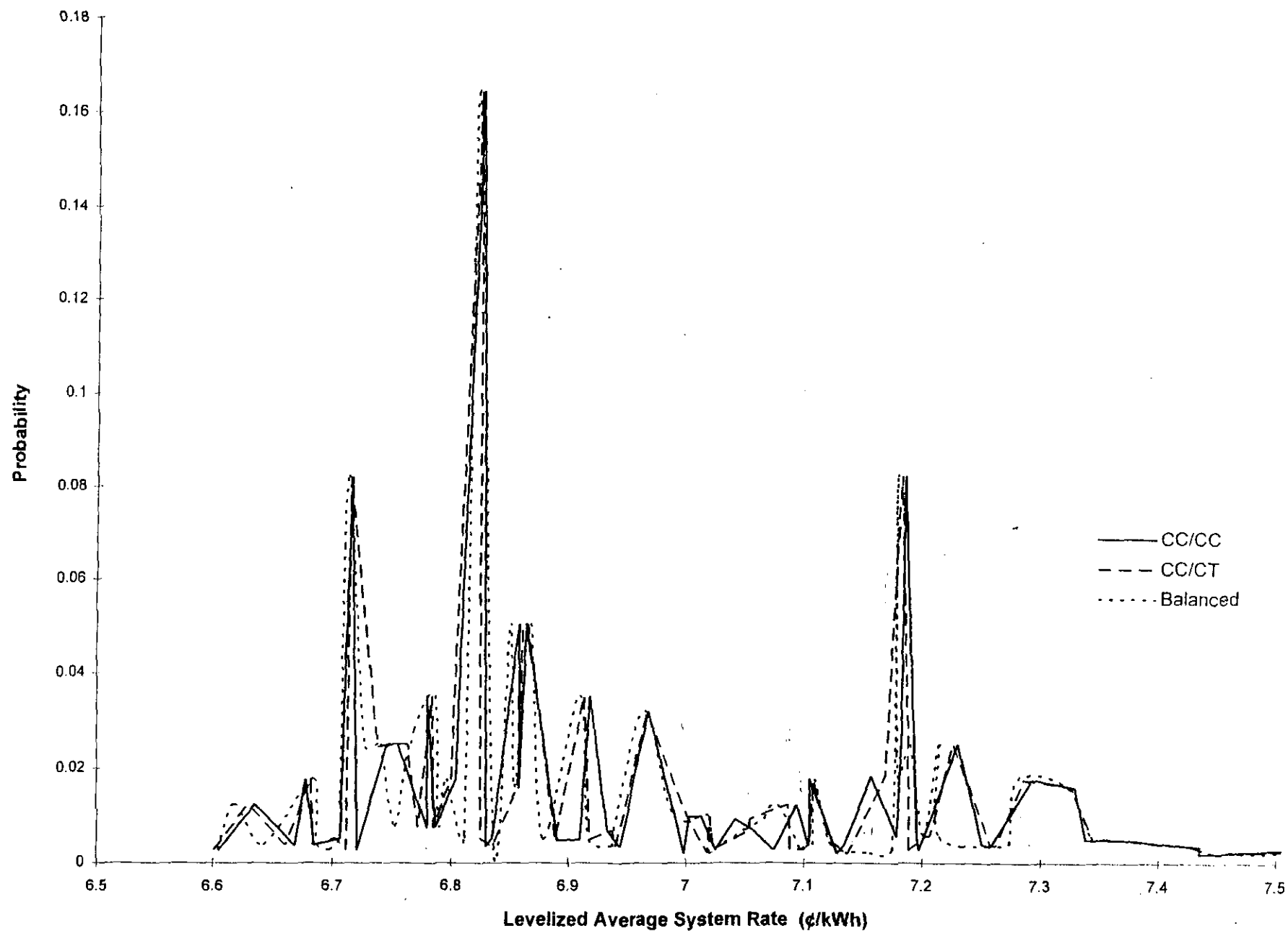
Levelized System Rates Histogram for 2008 Resource Decision



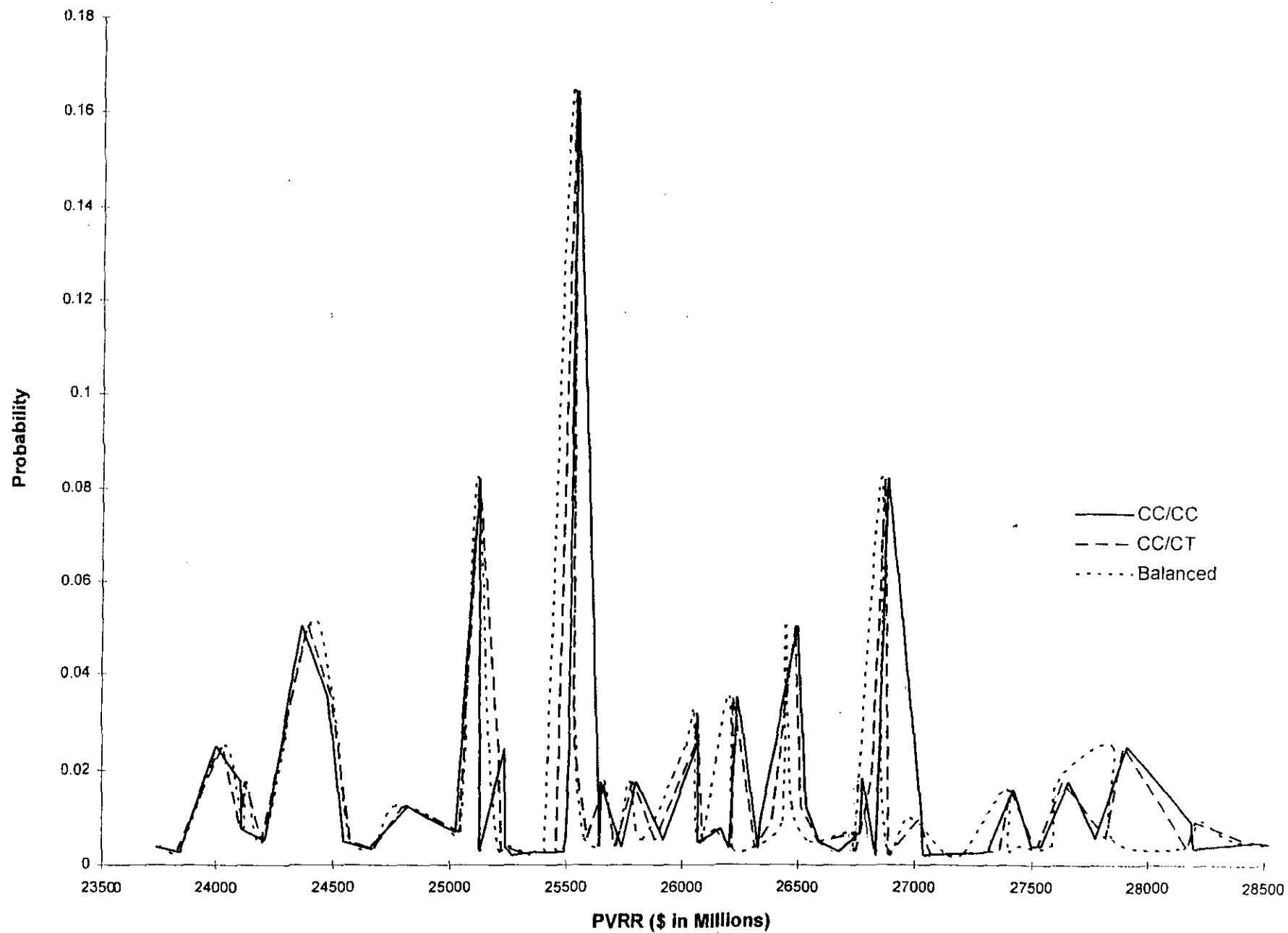
Utility Cost Histogram for 2008 Resource Decision



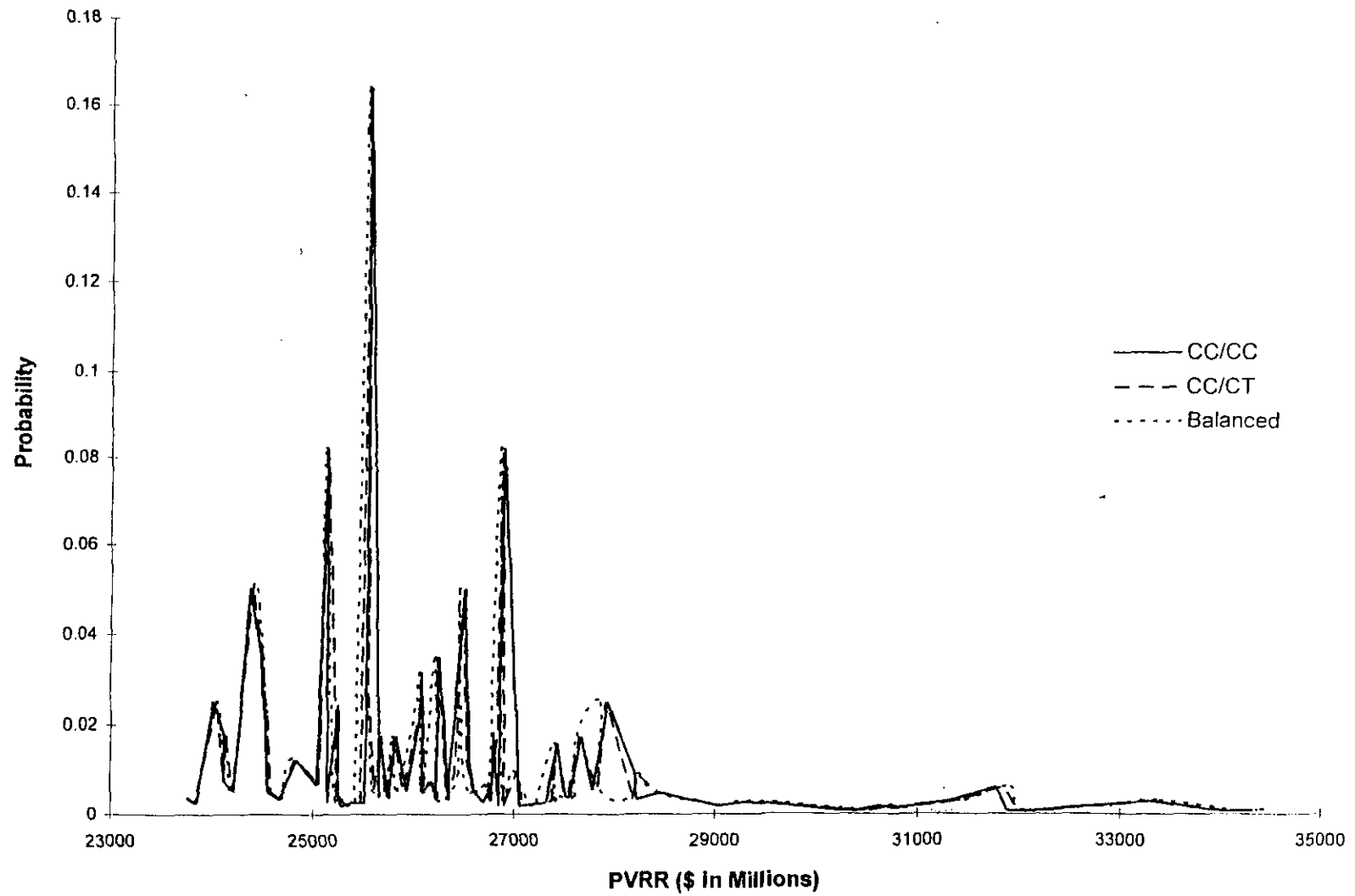
Levelized Average System Rates Histogram for 2008 Resource Decision



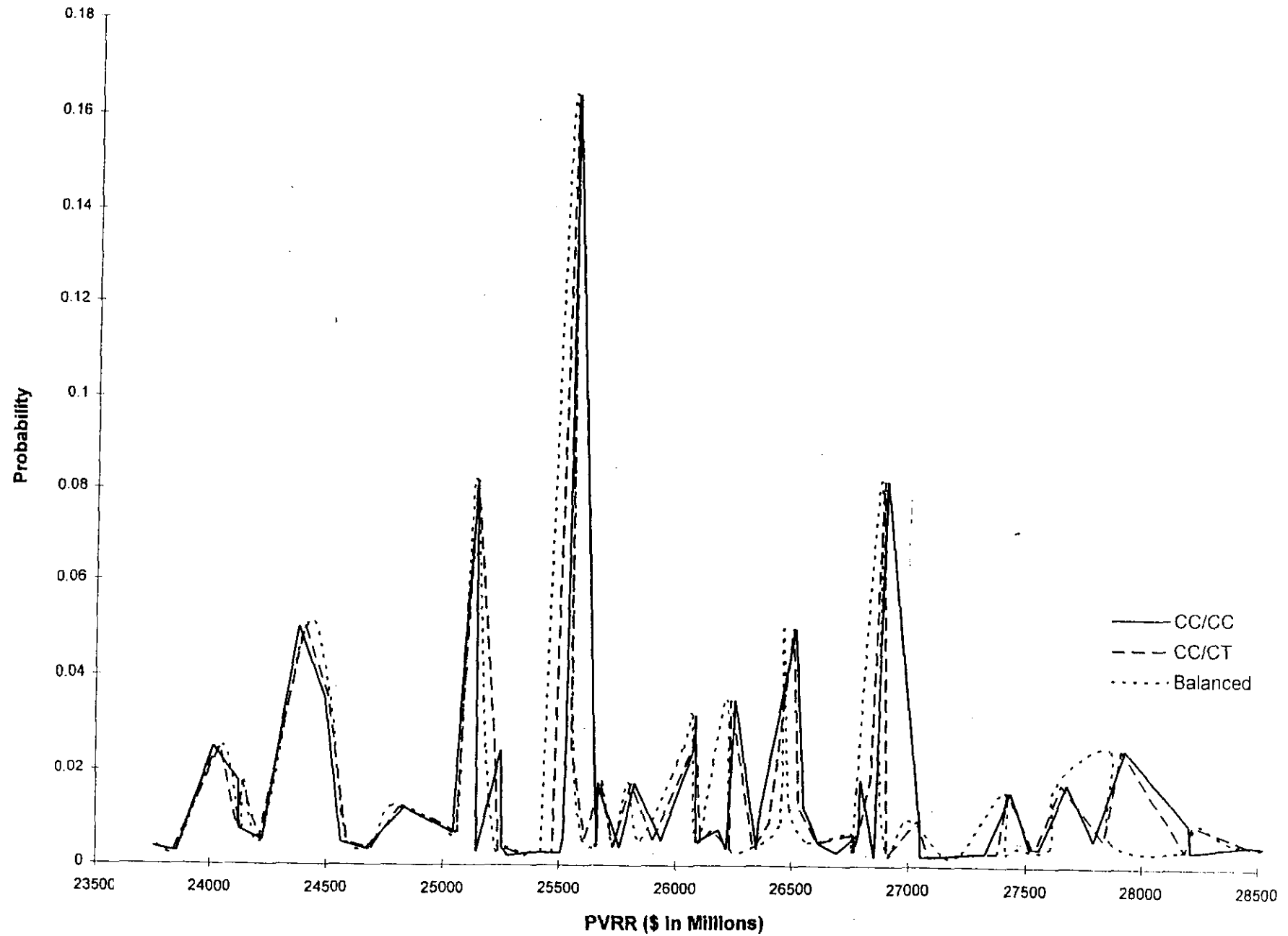
Utility Cost Histogram for 2008 Resource Decision



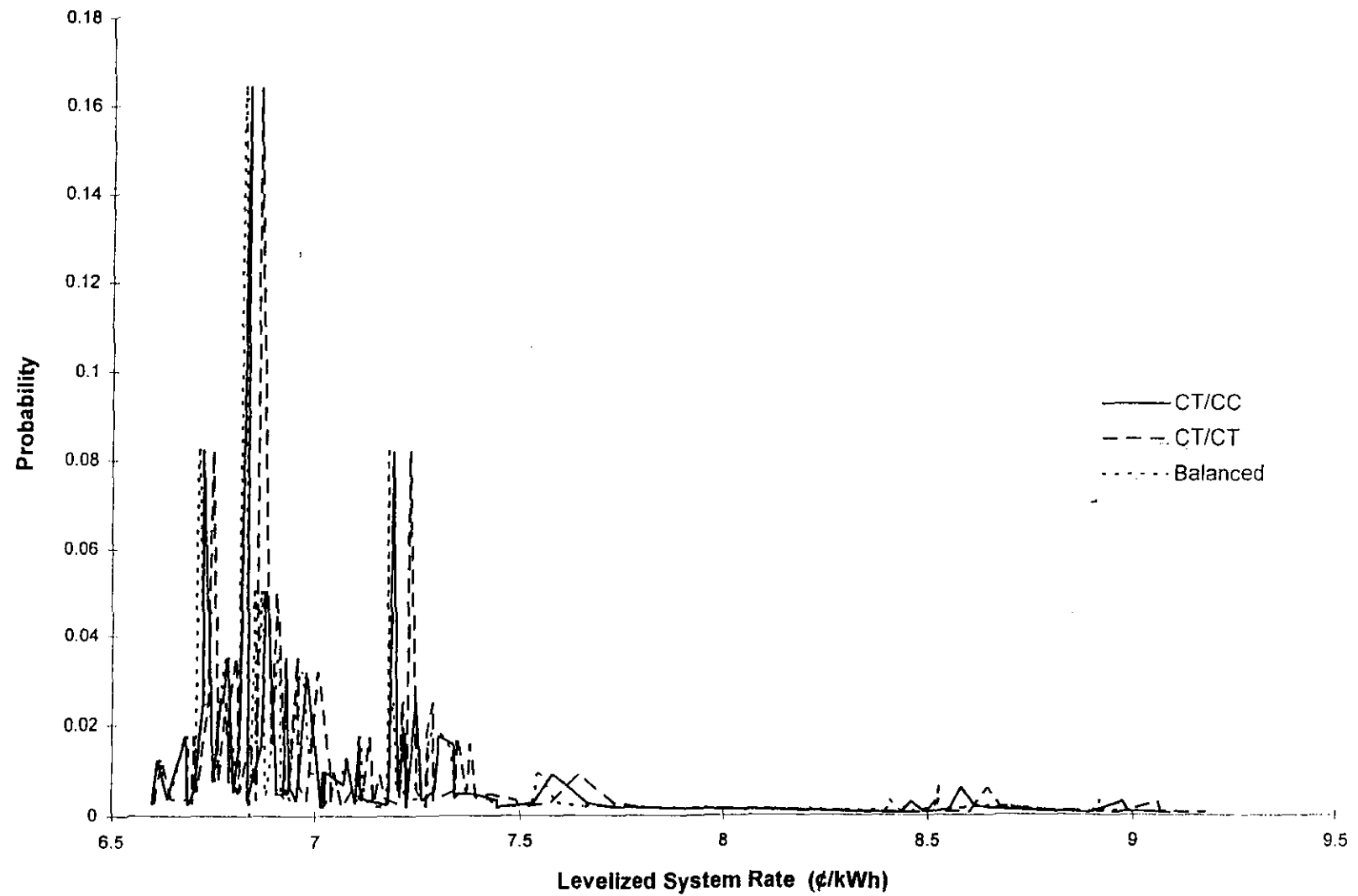
Total Resource Cost Histogram for 2008 Resource Decision



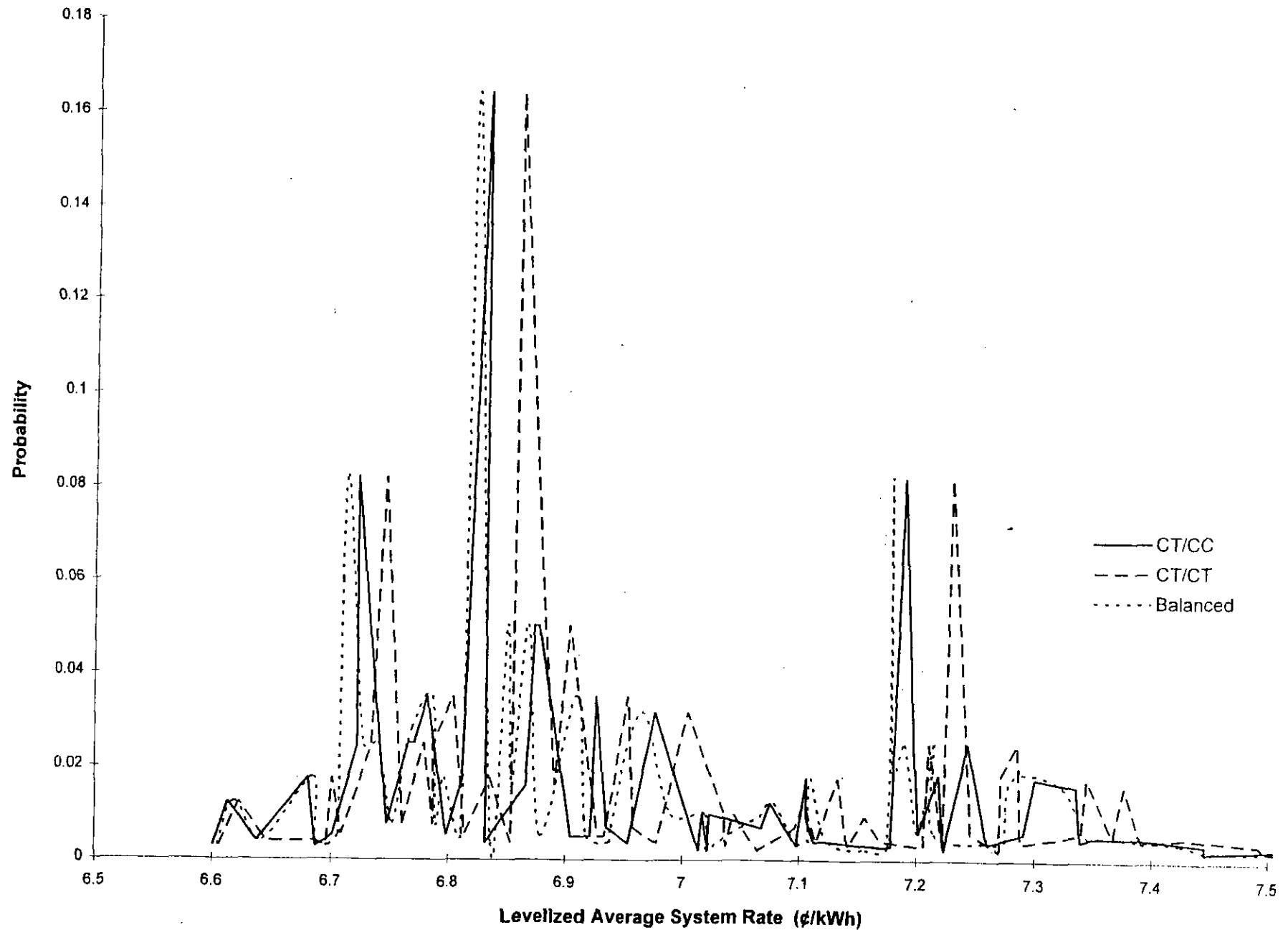
Total Resource Cost Histogram for 2008 Resource Decision



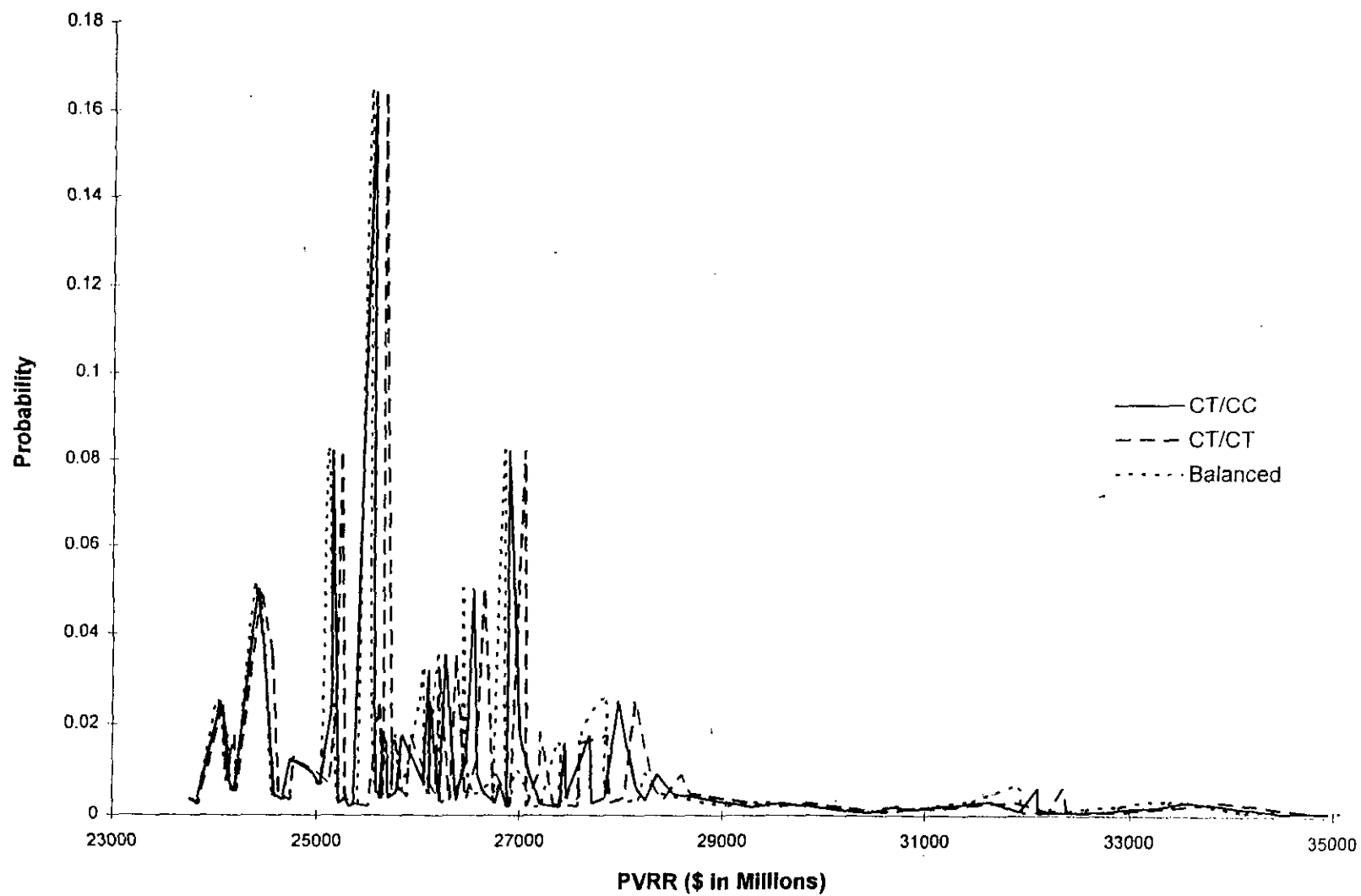
Levelized System Rates Histogram for 2008 Resource Decision



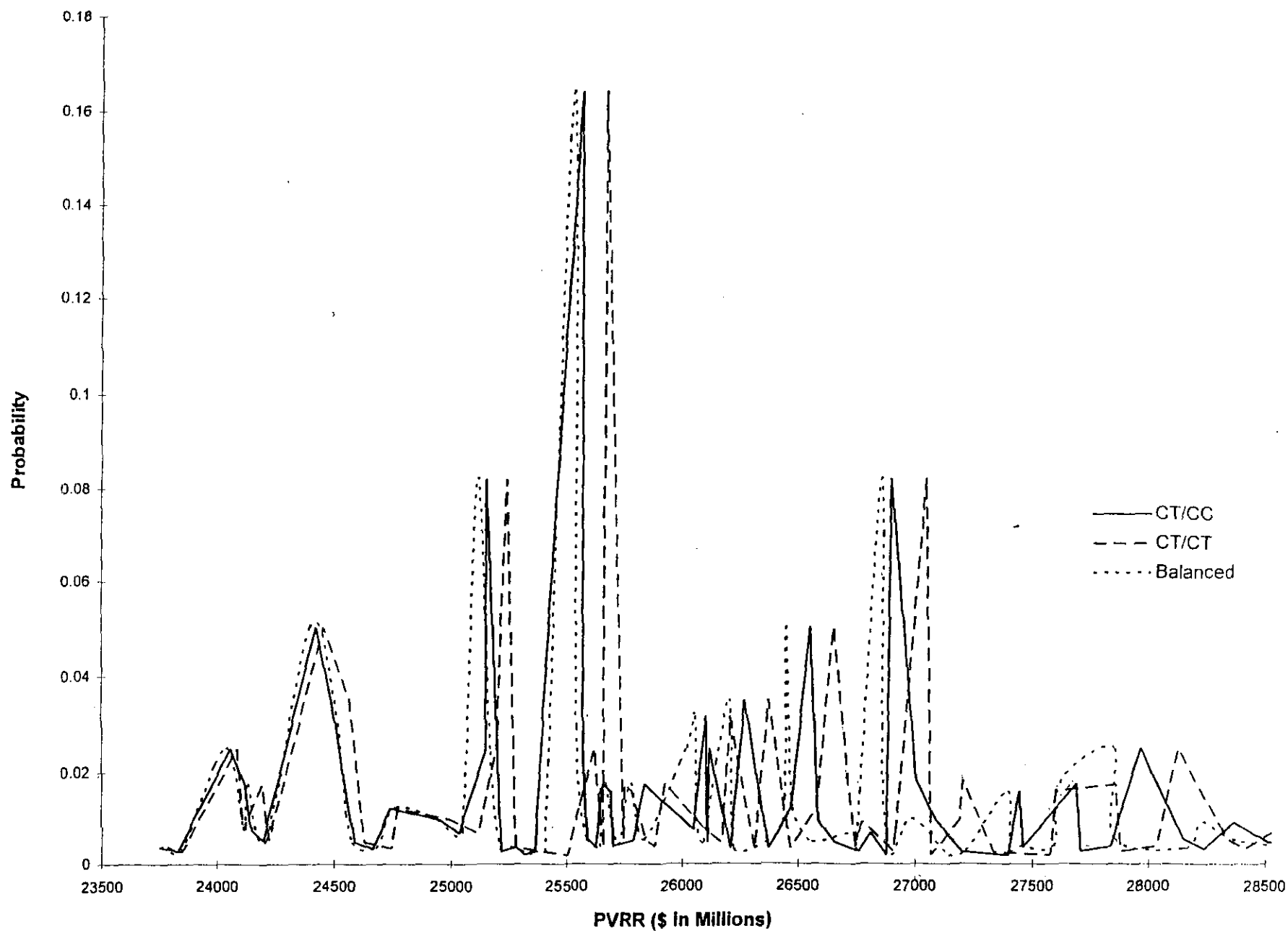
Levelized Average System Rates Histogram for 2008 Resource Decision



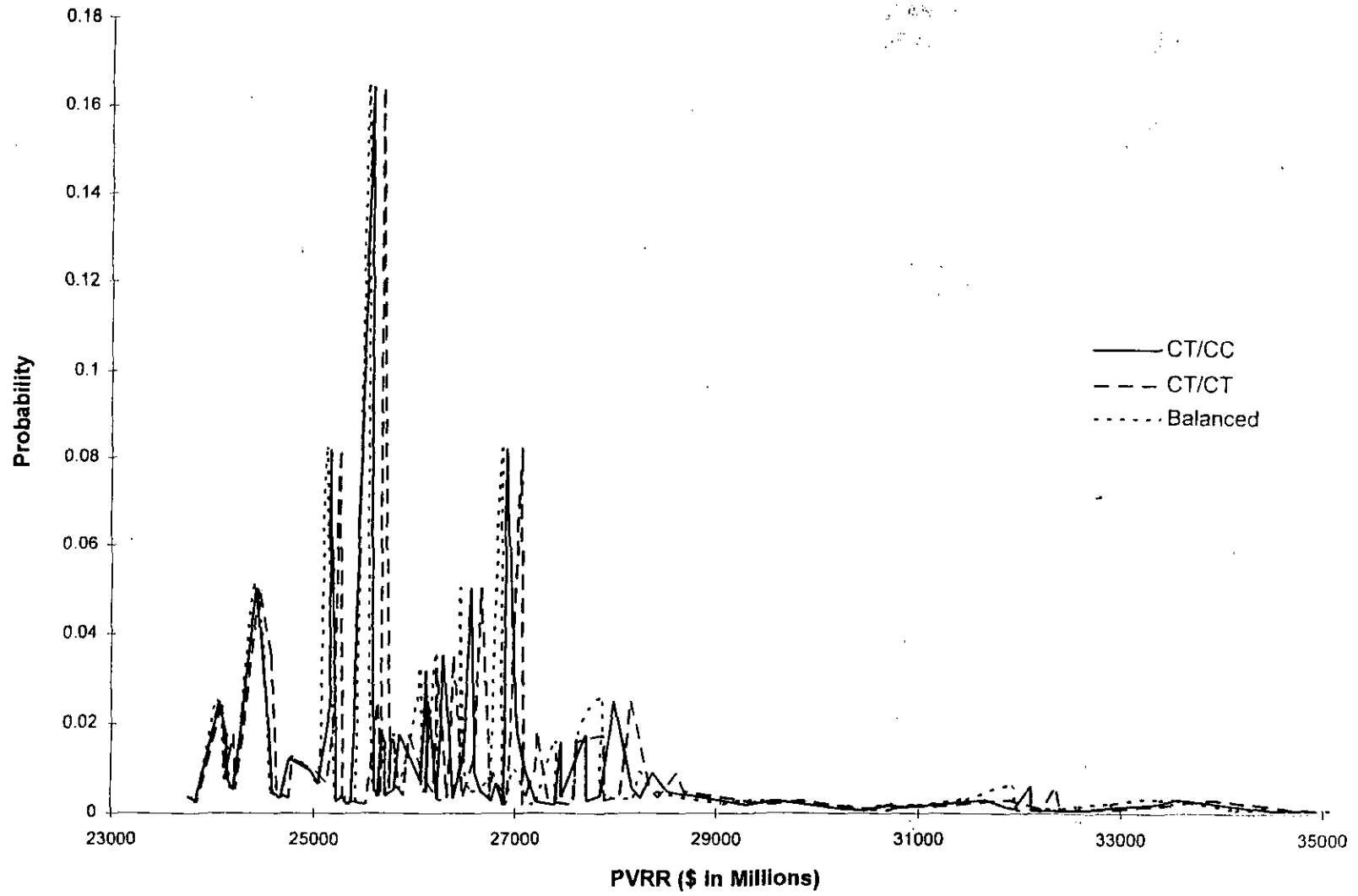
Utility Cost Histogram for 2008 Resource Decision



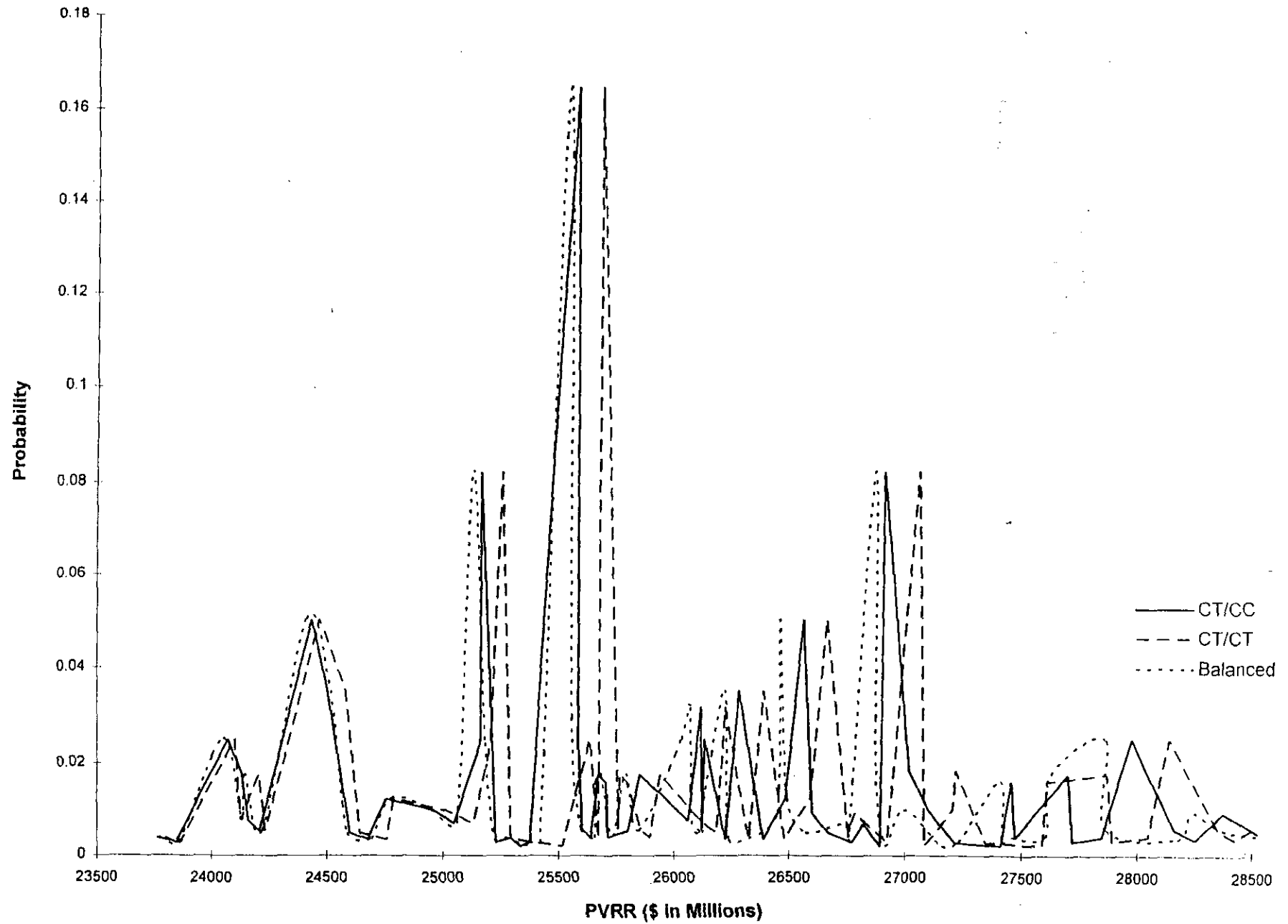
Utility Cost Histogram for 2008 Resource Decision



Total Resource Cost Histogram for 2008 Resource Decision



Total Resource Cost Histogram for 2008 Resource Decision



MEAN AND STANDARD DEVIATION*

STRATEGY	LEVELIZED AVERAGE SYSTEM RATES (¢/kWh)		UTILITY COST (\$ in Millions)		TOTAL RESOURCE COST (\$ in Millions)	
	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION	MEAN	STANDARD DEVIATION
DSM DECISION:						
DSM	6.979	0.335	25,977.92	1,427.89	25,991.49	1,427.89
NO DSM	6.973	0.335	26,071.87	1,434.37	26,071.87	1,434.37
EARLY 2000s RESOURCE DECISION:						
CC	6.980	0.329	25,983.27	1,421.58	25,996.84	1,421.58
BALANCE of CT & CC	6.979	0.335	25,977.92	1,427.89	25,991.49	1,427.89
CT	6.991	0.343	26,024.19	1,469.47	26,037.75	1,469.47
LATE 2000s RESOURCE DECISION: (EARLY 2000s CC)						
CC	6.980	0.329	25,983.27	1,421.58	25,996.84	1,421.58
BALANCE of CT & CC	6.979	0.335	25,977.92	1,427.89	25,991.49	1,427.89
CT	6.980	0.333	25,985.02	1,425.05	25,998.58	1,425.05
LATE 2000s RESOURCE DECISION: (EARLY 2000s CT)						
CC	6.991	0.343	26,024.19	1,469.47	26,037.75	1,469.47
BALANCE of CT & CC	6.979	0.335	25,977.92	1,427.89	25,991.49	1,427.89
CT	7.019	0.354	26,127.58	1,514.50	26,141.14	1,514.50

* Results for the mean values may differ slightly from the expected value results due to rounding. This table used MIDAS reported results to three and two decimal places. The expected values are computed internally by MIDAS and use values with more decimal places. All values cover the period, 1996-2015, with a 10 year extension period. The cost evaluation criteria are expressed as a 1996 present value of revenue requirements.

Summary of the Scenario Analysis

The scenario analysis consisted of three scenarios - high growth, nominal growth and low growth. The preferred all supply strategy and the preferred strategy with DSM were compared under these three scenarios. Each scenario used assumptions which were consistent with the economic trend suggested by the scenario. The results indicate that the strategy with DSM is preferred over the all supply strategy when the total resource cost test is used as the evaluation criteria. Using the levelized average system rates test as the evaluation criteria would cause the all supply strategy to be preferred.

The following page contains a table which summarizes these results.

Scenario Analysis
Strategy Comparison*

Levelized Average System Rates (¢/kWh)

Strategy	Scenario		
	Nominal	Low	High
All Supply	0	0	0
DSM	0.003	0.003	0.005

Utility Cost (\$ in Millions)

Strategy	Scenario		
	Nominal	Low	High
All Supply	107.81	73.73	99.02
DSM	0	0	0

Total Resource Cost (\$ in Millions)

Strategy	Scenario		
	Nominal	Low	High
All Supply	94.19	60.76	85.26
DSM	0	0	0

* The results shown for each scenario are the differences between the strategy cost and the low cost strategy expressed in either present value of revenue requirements or levelized rates over the period, 1996-2025.

Summary of DSM Load Impact Sensitivity

A DSM sensitivity was performed to determine the impact of changing the load impact of each DSM program. The load impact of each DSM program was increased and decreased by 20%. The expected value results were summarized and compared to the nominal case. The results indicate no change from the nominal case except for the 20% increase case. In that case, the preferred plan is essential equal in cost (total resource cost test) to the all CC units in the early 2000's and CT units in the late 2000's.

These results indicate that the level of DSM does not seem to have a significant impact on the selection of CC and CT units as future resources. Clearly, if more or less DSM is placed into the preferred strategy, it would have the effect of delaying or advancing and reducing or increasing the level of purchases in the early 2000's and advancing or delaying the timing of CT/CC units in the early 2000's.

The following pages contain tables which summarize the results described in the preceeding paragraphs.

Expected Value Results

Strategy	Levelized System Rate (Levelized c/kWh)	Utility Cost (30 Yr PVRR - \$ in Millions)	Total Resource Cost (30 Yr PVRR - \$ in Millions)
W No DSM Programs			
All CC Expansion	6.975	26,081.56	26,081.56
All CC thru 2008; All CT after 2008	6.973	26,073.05	26,073.05
Balanced- Alternating CT and CC additions	6.973	26,071.70	26,071.70
All CT thru 2007; All CC after 2007	6.987	26,124.64	26,124.64
All CT Expansion	7.015	26,232.01	26,232.01
W 10 DSM Programs			
All CC Expansion	6.980	25,983.10	25,996.66
All CC thru 2008; All CT after 2008	6.980	25,984.85	25,998.41
Balanced- Alternating CT and CC additions	6.979	25,977.75	25,991.31
All CT thru 2007; All CC after 2007	6.991	26,024.02	26,037.58
All CT Expansion	7.019	26,127.40	26,140.97
DIFFERENCE FROM LOWEST COST PLAN:			
W No DSM Programs			
All CC Expansion	0.002	103.81	90.25
All CC thru 2008; All CT after 2008	0	95.30	81.74
Balanced- Alternating CT and CC additions	0	93.95	80.39
All CT thru 2007; All CC after 2007	0.014	146.89	133.33
All CT Expansion	0.042	254.26	240.70
W 10 DSM Programs			
All CC Expansion	0.007	5.35	5.35
All CC thru 2008; All CT after 2008	0.007	7.10	7.10
Balanced- Alternating CT and CC additions	0.006	0	0
All CT thru 2007; All CC after 2007	0.018	46.27	46.27
All CT Expansion	0.046	149.65	149.66

Expected Value Results
DSM Load Impacts Increased by 20%

Strategy	Levelized System Rate (Levelized ¢/kWh)	Utility Cost (30 Yr PVRR - \$ in Millions)	Total Resource Cost (30 Yr PVRR - \$ in Millions)
W No DSM Programs			
All CC Expansion	6.975	26,081.56	26,081.56
All CC thru 2008; All CT after 2008	6.973	26,073.05	26,073.05
Balanced- Alternating CT and CC additions	6.973	26,071.70	26,071.70
All CT thru 2007; All CC after 2007	6.987	26,124.64	26,124.64
All CT Expansion	7.015	26,232.01	26,232.01
W 10 DSM Programs			
All CC Expansion	6.980	25,958.94	25,972.50
All CC thru 2008; All CT after 2008	6.978	25,953.85	25,967.42
Balanced- Alternating CT and CC additions	6.978	25,953.89	25,967.45
All CT thru 2007; All CC after 2007	6.990	25,997.59	26,011.15
All CT Expansion	7.019	26,104.98	26,118.55
DIFFERENCE FROM LOWEST COST PLAN:			
W No DSM Programs			
All CC Expansion	0.002	127.71	114.14
All CC thru 2008; All CT after 2008	0	119.20	105.63
Balanced- Alternating CT and CC additions	0	117.85	104.28
All CT thru 2007; All CC after 2007	0.014	170.79	157.22
All CT Expansion	0.042	278.16	264.59
W 10 DSM Programs			
All CC Expansion	0.007	5.09	5.08
All CC thru 2008; All CT after 2008	0.005	0	0
Balanced- Alternating CT and CC additions	0.005	0.04	0.03
All CT thru 2007; All CC after 2007	0.017	43.74	43.73
All CT Expansion	0.046	151.13	151.13

Expected Value Results
DSM Load Impacts Decreased by 20%

Strategy	Levelized System Rate (Levelized ¢/kWh)	Utility Cost (30 Yr PVRR - \$ in Millions)	Total Resource Cost (30 Yr PVRR - \$ in Millions)
W No DSM Programs			
All CC Expansion	6.975	26,081.56	26,081.56
All CC thru 2008; All CT after 2008	6.973	26,073.05	26,073.05
Balanced- Alternating CT and CC additions	6.973	26,071.70	26,071.70
All CT thru 2007; All CC after 2007	6.987	26,124.64	26,124.64
All CT Expansion	7.015	26,232.01	26,232.01
W 10 DSM Programs			
All CC Expansion	6.983	26,017.46	26,031.02
All CC thru 2008; All CT after 2008	6.983	26,016.35	26,029.92
Balanced- Alternating CT and CC additions	6.980	26,005.83	26,019.39
All CT thru 2007; All CC after 2007	6.991	26,047.63	26,061.20
All CT Expansion	7.019	26,152.95	26,166.51
DIFFERENCE FROM LOWEST COST PLAN:			
W No DSM Programs			
All CC Expansion	0.002	75.73	62.17
All CC thru 2008; All CT after 2008	0	67.22	53.66
Balanced- Alternating CT and CC additions	0	65.87	52.31
All CT thru 2007; All CC after 2007	0.014	118.81	105.25
All CT Expansion	0.042	226.18	212.62
W 10 DSM Programs			
All CC Expansion	0.010	11.63	11.63
All CC thru 2008; All CT after 2008	0.010	10.52	10.53
Balanced- Alternating CT and CC additions	0.007	0	0
All CT thru 2007; All CC after 2007	0.018	41.80	41.81
All CT Expansion	0.046	147.12	147.12



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1-800-735-2466 Voice

January 23, 2007

Bob Schallenberg
Missouri Public Service Commission
PO Box 360
Jefferson City MO 65102-0360

VIA Hand-delivery

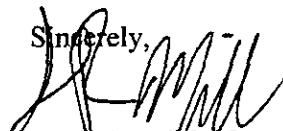
RE: AmerenUE
Case No. ER-2007-0002

Dear Bob:

Enclosed please find the Office of the Public Counsel's response to Data Request No. 528.

If you have any questions, please do not hesitate to contact me.

Sincerely,



Lewis R. Mills, Jr.
Public Counsel

LRM:jb

Enclosures

Missouri Public Service Commission

Data Request

Data Request No.	0528
Company Name	Office of the Public Counsel-(All)
Case/Tracking No.	ER-2007-0002
Date Requested	1/23/2007
Issue	Other - Other
Requested From	Ryan Kind
Requested By	Bob Schallenberg
Brief Description	NA
Description	Please provide a copy of OPC response to Data Request 501 and 502 in EC-2002-2.
Due Date	2/12/2007

The attached information provided to Missouri Public Service Commission Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the Missouri Public Service Commission Staff if, during the pendency of Case No. ER-2007-0002 before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information.

If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the Office of the Public Counsel-(All) office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to Office of the Public Counsel-(All) and its employees, contractors, agents or others employed by or acting in its behalf.

Security	Public
Rationale	NA

With Proprietary and Highly Confidential Data Requests a Protective Order must be on file..

FILE COPY

AmerenUE's Response to
Office of Public Counsel Data Request
Case No. EC-2002-1
Excess Earnings Complaint
Staff of the MPSC v. Union Electric Company d/b/a/ AmerenUE

No. 501

Information Requested: Please provide a copy of all documents created by or for Ameren or its affiliates in the last 3 years that contain summaries of electric supply resource plans for some or all of AmerenUE's Missouri jurisdictional operations. If no documents within the scope of those requested in this DR exist, Please provide a statement to that effect.

Response:

The AmerenUE resource plan for years 1998, 1999, and 2000 are attached. Each resource plan shows a 10-year forecast of demand, capabilities, and resources needed. Each resource plan is based on the resources that were known by April 1st, for that given year.

Signed By:

David J. Brueggeman 8/3/01

Prepared By: David J Brueggeman

Title: Consulting Engineer

AUG 09 2001

DATA RESPONSE CONFIDENTIALITY CLAIM

The attached response, or parts thereof, to Data Request 501 has been marked as Highly Confidential, Proprietary, or both. Union Electric is providing the information requested pursuant to the terms of the Protective Order issued by the Missouri Public Service Commission in Docket No. EC-2002-1. The grounds for this designation are indicated below:

HIGHLY CONFIDENTIAL

The attached response is Highly Confidential because it contains information concerning:

- ☐ 1. material or documents that contain information relating directly to specific customers;
- ☐ 2. employee-sensitive information;
- ☐ 3. marketing analyses or other market-specific information relating to services offered in competition with others;
- ☐ 4. reports, work papers or other documentation related to work produced by internal or external auditors or consultants;
- ☐ 5. strategies employed, to be employed, or under consideration in contract negotiations.

PROPRIETARY

The attached response is Proprietary because it contains information concerning:

- ☐ 1. trade secrets;
- ☒ 2. confidential or private technical, financial and business information.

8/7/01
Date

J. J. [Signature]

Schallenberg

Surrebuttal Schedules 3-5 through 3-7

Deemed

Proprietary

In Their Entirety

AmerenUE's Response to
Office of Public Counsel Data Request
Case No. EC-2002-1
Excess Earnings Complaint
Staff of the MPSC v. Union Electric Company d/b/a/ AmerenUE

FILE COPY

No. 502

Information Requested: Please provide a copy of all documents created by or for Ameren or its affiliates in the last 3 years that contain summaries of electric supply resource plans for some or all of Ameren's electric utility operations (both regulated and non-regulated). If no documents within the scope of those requested in this DR exist, Please provide a statement to that effect. Please do not provide additional copies of any documents that are being provided in response to OPC DR No. 501.

Response:

The AmerenCIPS resource plan for years 1998, 1999, and 2000 are attached. Each resource plan shows a 10-year forecast of demand, capabilities, and resources needed. Each resource plan is based on the resources that were known by April 1st, for that given year.

Signed By:

David J. Brueggeman 8/3/01
Prepared By: David J Brueggeman
Title: Consulting Engineer

Schedule 3-8

AUG 09 2001

DATA RESPONSE CONFIDENTIALITY CLAIM

The attached response, or parts thereof, to Data Request 502 has been marked as Highly Confidential, Proprietary, or both. Union Electric is providing the information requested pursuant to the terms of the Protective Order issued by the Missouri Public Service Commission in Docket No. EC-2002-1. The grounds for this designation are indicated below:

HIGHLY CONFIDENTIAL

The attached response is Highly Confidential because it contains information concerning:

- ☐ 1. material or documents that contain information relating directly to specific customers;
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- ☐ 3. marketing analyses or other market-specific information relating to services offered in competition with others;
- ☐ 4. reports, work papers or other documentation related to work produced by internal or external auditors or consultants;
- ☐ 5. strategies employed, to be employed, or under consideration in contract negotiations.

PROPRIETARY

The attached response is Proprietary because it contains information concerning:

- ☐ 1. trade secrets;
- ☒ 2. confidential or private technical, financial and business information.

8/7/01
Date

J. Glor

Schallenberg

Surrebuttal Schedules 3-10 through 3-12

Deemed

Proprietary

In Their Entirety