

2000 PACIFIC NORTHWEST LOADS AND RESOURCES STUDY

THE WHITE BOOK

BONNEVILLE POWER ADMINISTRATION
December 2000

ACKNOWLEDGMENTS

Preparation of the annual Pacific Northwest loads and resources study is a complex, multidisciplinary effort. BPA wishes to acknowledge the team—BPA staff and others—whose diligence and dedication result in a reliable, high quality document.

Bonneville Power Administration
Generation Supply: Regional Coordination Group
Office of General Counsel

Pacific Northwest Utilities Conference Committee

Reports Powered by:



Loads and Resources Information System

2000 Pacific Northwest Loads and Resources Study

TABLE OF CONTENTS

	Page
Section 1: Introduction	1
Description of the White Book	1
Section 2: Background	3
Pacific Northwest Planning Area	3
White Book Study Assumptions	3
Load Forecasting	3
Pacific Northwest Hydro and Thermal Resources	3
Analysis of Federal System Firm Loads and Resources	5
Analysis of Regional Firm Loads and Resources	5
Canadian Treaty Downstream Benefits	6
Canadian Entitlement to Columbia Storage Power Exchange (CSPE) Through March 31, 2003	6
Canadian Entitlement to Canada, Beginning April 1, 1998	6
Major Sources of Uncertainty	7
Section 3: Changes in the 2000 Pacific Northwest Loads and Resources Study	8
Firm Load Changes	8
BPA's 2001 Power Sales Contracts	8
Firm Resource Changes	10
Section 4: Federal System Analysis	11
Federal Firm Energy Loads	11
Federal Firm Peak Loads	13
Federal Firm Resources	14
Federal Firm Energy Surplus/Deficit Projections	16
Federal Firm Capacity Surplus/Deficit Projections	19
Federal Resource Adequacy	22
Section 5: Regional Analysis	23
Regional Firm Energy Loads	23
Regional Firm Peak Loads	24
Regional Firm Resources	24
Regional Firm Energy Surplus/Deficit Projections	26
Regional Firm Capacity Surplus/Deficit Projections	27
Regional Resource Adequacy	28

TABLE OF CONTENTS

	Page
Section 6: Federal System Exhibits	29
Federal System Annual Energy Analysis Under 1937 Water Conditions for 10 Operating Years	31
Exhibit 1. Medium Load	33
Federal System Monthly Energy Analysis Under Medium Loads for 1937 Water Conditions	35
Exhibit 2. OY 2001-02	37
Exhibit 3. OY 2005-06	38
Exhibit 4. OY 2010-11	39
Federal System Monthly Capacity Analysis Under Medium Loads for 1937 Water Conditions	41
Exhibit 5. OY 2001-02	43
Exhibit 6. OY 2005-06	44
Exhibit 7. OY 2010-11	45
Federal System Energy Surpluses and Deficits for 50 Historical Water Conditions	47
Exhibit 8. OY 2001-02	49
Exhibit 9. OY 2002-03	50
Exhibit 10. OY 2003-04	51
Exhibit 11. OY 2004-05	52
Exhibit 12. OY 2005-06	53
Exhibit 13. OY 2006-07	54
Exhibit 14. OY 2007-08	55
Exhibit 15. OY 2008-09	56
Exhibit 16. OY 2009-00	57
Exhibit 17. OY 2010-11	58
Section 7: Pacific Northwest Regional Exhibits	59
Regional Annual Energy Analysis Under 1937 Water Conditions for 10 Operating Years	61
Exhibit 18. Medium Loads	63
Regional Monthly Energy Analysis Under Medium Loads for 1937 Water Conditions	65
Exhibit 19. OY 2001-02	67
Exhibit 20. OY 2005-06	68
Exhibit 21. OY 2010-11	69

TABLE OF CONTENTS

	Page
Section 7: Pacific Northwest Regional Exhibits (continued)	
Regional Monthly Capacity Analysis Under Medium Loads for 1937 Water Conditions	71
Exhibit 22. OY 2001-02	73
Exhibit 23. OY 2005-06	74
Exhibit 24. OY 2010-11	75
Regional Energy Surpluses and Deficits for 50 Historical Water Conditions	77
Exhibit 25. OY 2001-02	79
Exhibit 26. OY 2002-03	80
Exhibit 27. OY 2003-04	81
Exhibit 28. OY 2004-05	82
Exhibit 29. OY 2005-06	83
Exhibit 30. OY 2006-07	84
Exhibit 31. OY 2007-08	85
Exhibit 32. OY 2008-09	86
Exhibit 33. OY 2009-00	87
Exhibit 34. OY 2010-11	88
Section 8: Administrator’s Record of Decision on the 2000 Pacific Northwest Loads and Resources Study (The White Book)	89
Section 9: Glossary and Acronyms	95