

Chapter 2 Status of Portfolio

Existing Resources

The NorthWestern portfolio has approximately 300 MW of long-term power supply contracts that were also part of the 2005 Plan's portfolio. These contracts are described below.

NorthWestern's portfolio includes approximately 100 MW of unit contingent Qualifying Facility (QF) energy that comes from contracts entered into prior to 1997. This group of 15 contracts consists of thermal, hydro, and wind generation. Contract capacity ratings show thermal at 83%, hydro at 13%, and wind at 4% of the total contract amount. The largest of these contracts is a thermal plant at 52 MW and the smallest is a hydro plant at 60 kW. NorthWestern entered into a Tier II settlement with the Montana Consumer Counsel on recoverable QF rates for these 15 QF contracts. Under this Tier II settlement, only a portion of the costs of these contracts is included in the Supply portfolio. In addition to the Tier II contracts, NorthWestern continues to sign new QF contracts under its QF-1 Tariff and currently includes an additional 4.7 MW of unit contingent QF generation in the Supply portfolio at Commission determined rates.

In 2006, NorthWestern began receiving power from Judith Gap Energy, LLC, a wind turbine facility. NorthWestern, through a long-term power purchase agreement, receives approximately 135 MW of unit contingent energy from Judith Gap. Judith Gap Energy, LLC achieved commercial operation on February 16, 2006. This contract expires on December 31, 2026.

NorthWestern has a 6 MW unit-contingent energy contract with Tiber Montana, L.L.C., a small hydro facility. Tiber Montana achieved contract operation on June 1, 2004. This contract expires on June 1, 2024.

Finally, NorthWestern has a contract with Basin Creek Equity Partners, LLC. Basin Creek is a 52 MW peaking facility that came on-line in 2006. This contract will expire on July 1, 2026, unless extended for a 5-year term in accordance with the contract. As discussed below, Basin operations have been somewhat modified to accommodate operational needs and market requirements.

The Basin Creek plant consists of nine reciprocating engines with a maximum output of approximately 5.7 MW each. The plant is fueled by natural gas. Basin Creek was originally built to cover peak day and peak hour needs as well as to help with the integration of wind resources, particularly the Judith Gap facility. It continues to serve these purposes, but over time there have been additional operational applications that have provided value above the original design.

In the Western Electric Coordinating Council (WECC) service area, thermal resources must carry 7% operating reserves while hydro and wind must be backed by 5% reserves. NorthWestern has and will continue to have unit-contingent resources in its portfolio that require operating reserves. In the past few years the market for ancillary services such as operating reserves has tightened which has caused prices to increase substantially. In order to avoid paying steep prices in the market for operating reserves, NorthWestern at times has self-provided the reserves by utilizing the capacity from the Basin Creek facility. In doing so, NorthWestern must refrain from dispatching the portion of the plant that has been designated to provide reserves, and the plant must be available to be dispatched should a unit that is providing supply go off-line. Determining whether to use Basin Creek for operating reserves is based on market conditions, natural gas prices, portfolio characteristics, and the price and ability to purchase reserves in the market. No matter what decision is made, there is an opportunity cost or gain that will be realized: if electric prices increase dramatically and a portion of the plant was used for reserves, then higher priced purchases have to be made in place of operating the plant. Conversely, if market prices remain low and the plant is used for reserves, then high-priced reserve

purchases have been avoided and customers will have benefited from using the idle capacity from Basin Creek to provide reserves.

In addition, at times in the WECC the forward market price for base load power is greater than the cost to dispatch Basin Creek. In those instances, NorthWestern will purchase fixed price gas for a month or longer and run the plant throughout the day, and even sometimes at night. In very rare economic instances, the facility is available to make off-system sales. So long as the overall portfolio is short and market prices are greater than variable costs, it also makes sense to run the plant and avoid higher priced purchases. Finally, NorthWestern's energy supply and electric transmission groups have signed a Memorandum of Understanding (MOU) allowing the transmission group to automatically increase or decrease Basin Creek output based on changes in wind output. This flexibility has proven very beneficial in helping with sudden movements in wind generation.

In summary, the Basin Creek facility has many uses and it is a valuable resource in the portfolio. However, since it is not able at all times to provide all the services just discussed, operating decisions must be made that are reflective of current and expected market conditions.

NorthWestern Portfolio Changes Since 2005 Plan

The 2005 Plan focused on actions to address the electric supply portfolio's requirement for significant quantities of base load resources that began in July 2007. The 2005 Plan identified several mechanisms such as auctions, bilateral negotiations, and RFP that NorthWestern would likely use to acquire generation resources and specifically mentions that negotiations with PPL Montana would continue. The 2005 Plan, including a subsequent Addendum, focused extensively on the uncertainty created by the expiration of the two PPL Montana contracts in mid-2007. These contracts provided approximately 55 percent of the total energy needs of electric supply. Absent new resource acquisitions, the

2005 Plan identified a portfolio comprised of 67 percent market purchases by 2008.

The 2005 Plan also posited the concept of bridging contracts – power purchase contracts that would bridge the short-term resource needs to longer-term solutions – as the preferred path for NorthWestern to take. The bridging approach was anticipated to consist of a mix of short, medium and long-term power purchase contracts that would extend out over time. The time frames for the contracts would be designed to straddle the estimated date for procurement of new long-term resources. In the event the timing of procuring long-term resources was delayed, additional layering of contracts could be achieved.

The 2005 Plan also identified the need for long-term price stability, potentially achievable through legislative changes that would enable long-term PPAs and equity acquisitions. Thus concurrent with the implementation of this bridging approach, NorthWestern during 2006 and the first part of 2007 worked with other parties to develop and promote legislation to create greater planning certainty and the ability to rate-base generation. HB 25 was developed to accomplish these objectives and was passed by the Montana Legislature and signed into law in 2007.

Given the amount of market exposure that the 2005 Plan's portfolio forecast indicated was to occur in mid 2007, NorthWestern focused on acquiring baseload resources during 2005 and 2006. These specific acquisition, consistent with the 2005 Plan, are discussed below.

Auction

The 2005 Plan stated that NorthWestern would undertake a pilot auction, absent a favorable Federal Energy Regulatory Commission (FERC) decision involving the PPL Companies' presumed market power in NorthWestern Energy's control area. When FERC granted PPL Montana market-based rate authority,

NorthWestern developed and conducted a pilot auction in the Fall of 2006 consistent with NorthWestern's the 2005 Plan and the associated MPSC comments.

The following Table 2-1 outlines the proposed pilot auction in terms of quantity, type, and term that was put forward in the 2005 Plan.

Table 2-1, Auction Quantities Proposed

Proposed Auction				
	9 Month	18 Month	3 Year	5 Year
Heavy (MW)	25	25	50	75
Light		25		
Dispatchable		50		

Actual volumes solicited during the auction process were significantly less than those anticipated in the 2005 Plan, primarily due to the completion of the PPL bilateral deal (discussed below), which provided about 37 percent of the portfolio's energy requirements in the 2007 tracker year. The simultaneous descending clock auction was conducted on November 14, 2006 and lasted for 33 rounds over approximately four hours. The auction ended with the procurement of six products from three bidders: four products at 25 MW and two products at 50 MW. See Table 2-2, Auction Results which presents the products procured, along with the final prices and quantities of the products acquired. The starting and ending prices and quantities for each product procured during the auction are presented in Table 2-3.

NorthWestern began receiving approximately 200 MW of power from the auction beginning July 1, 2007 with various on peak, off peak, and Sunday volumes. These six contracts, ranging in terms of 9 months to 36 months in length. The first of these contracts expires March 2008 and the last will expire June 2010.

Table 2-2, Auction Results

Auction Results

<u>Product</u>	Maximum # of 25 MW blocks <u>sought</u>	# of 25 MW blocks <u>purchased</u>	Price (\$/MWh)	Approximate # of MWh's
9 Month On Peak	1			
18 Month On Peak	2	1	\$69.85	184,000
36 Month On Peak	2			
9 Month Off Peak				
18 Month Off Peak	1	1	\$55.10	143,000
36 Month Off Peak	3	1	\$52.45	288,000
9 Month Sunday & NERC Holiday	1	1	\$70.25	16,400
18 Month Sunday & NERC Holiday	3	2	\$68.00	68,800
36 Month Sunday & NERC Holiday	2	2	\$65.50	139,200
Total MWhs	2,886,200			839,400
Total Cost				\$50,785,400
Average price per MWh				\$60.50

Table 2-3: Starting-Ending Quantities Available and Prices

Product Name	Starting Quantity Available	Starting Price	Ending Quantity Available	Ending Price
On-peak 9 month	0	72.00	0	72.00
On-peak 18 month	2	70.25	1	69.85
On-peak 36 month	3	67.00	0	67.00
Off-peak 9 month	0	59.50	0	59.50
Off-peak 18 month	1	57.00	2	55.10
Off-peak 36 month	3	54.25	1	52.45
Sunday 9 month	1	70.25	1	70.25
Sunday 18 month	3	68.00	2	68.00
Sunday 36 month	4	65.50	2	65.50

PPL Bilateral Negotiation

NorthWestern, through bilateral negotiations, finalized a contract with PPL Montana in 2006. This fixed price contract was the result of extensive negotiations over an extended time frame. Of significant note related to the timing of the offer was the Federal Energy Regulatory Commission (“FERC”) decision on PPL’s market power. PPL was reluctant to give NorthWestern an offer and NorthWestern, in concert with the MCC, was reluctant to pursue an offer that was priced much higher than their current contract, pending the outcome of the FERC market power case. While bilateral negotiations did occur over a 7-month time frame, both sides believed they had strong positions in the FERC case and the outcome was pivotal to the ultimate pricing obtained by NorthWestern. PPL’s first indicative offer was received just days after the FERC ruling.

The PPL Bilateral Contract, entered into on July 5, 2006, is a seven-year agreement for over 13.6 million MWh of electric supply with a notional value of approximately \$674 million and represented a discount to the forward market curve (at the time of the transaction) of about \$86 million. This translates to an average discount to market at that point in time of approximately \$6.30/MWh. The PPL contract provides declining blocks of power in three steps over time, allowing the opportunity for future additional blocks of power to be acquired over time. The specific volumes and prices are provided in Table 2-4, PPL Contract.

The July 2006 PPL contract is consistent with the aforementioned objectives in the Plan, including the bridging concept. This contract provides about 37 percent of the total portfolio’s energy requirements during the 2007 contract period. This amount decreases over time. In 2014, this contract provides about 23 percent of the portfolio’s forecast requirements.

Table 2-4, PPL Contract

July 6, 2006 PPL Contract

		MWh		PPL Price	
		On-Pk	Off-Pk	On-Pk	Off-Pk
T h r e e Y e a r	Q3 2007	406,250	164,500	\$44.95	\$44.95
	Q4 2007	406,250	164,500	\$45.35	\$45.35
	Q1 2008	406,250	164,500	\$45.75	\$45.75
	Q2 2008	406,250	164,500	\$46.15	\$46.15
	Q3 2008	406,250	164,500	\$46.55	\$46.55
	Q4 2008	406,250	164,500	\$46.95	\$46.95
	Q1 2009	406,250	164,500	\$47.35	\$47.35
	Q2 2009	406,250	164,500	\$47.75	\$47.75
	Q3 2009	406,250	164,500	\$48.15	\$48.15
	Q4 2009	406,250	164,500	\$48.55	\$48.55
T w o Y e a r	Q1 2010	406,250	164,500	\$48.95	\$48.95
	Q2 2010	406,250	164,500	\$49.35	\$49.35
	Q3 2010	343,750	141,000	\$49.75	\$49.75
	Q4 2010	343,750	141,000	\$50.15	\$50.15
	Q1 2011	343,750	141,000	\$50.55	\$50.55
	Q2 2011	343,750	141,000	\$50.95	\$50.95
	Q3 2011	343,750	141,000	\$51.35	\$51.35
	Q4 2011	343,750	141,000	\$51.75	\$51.75
	Q1 2012	343,750	141,000	\$52.15	\$52.15
	Q2 2012	343,750	141,000	\$52.55	\$52.55
T w o Y e a r	Q3 2012	250,000	117,500	\$52.60	\$52.60
	Q4 2012	250,000	117,500	\$52.65	\$52.65
	Q1 2013	250,000	117,500	\$52.70	\$52.70
	Q2 2013	250,000	117,500	\$52.75	\$52.75
	Q3 2013	250,000	117,500	\$52.80	\$52.80
	Q4 2013	250,000	117,500	\$52.85	\$52.85
	Q1 2014	250,000	117,500	\$52.90	\$52.90
	Q2 2014	250,000	117,500	\$52.95	\$52.95

Total Volume	13,667,000	mwh
Volumes	<u>HL MW</u>	<u>LL MW</u>
7/2007-6/2010	325	175
7/2010-6/2012	275	150
7/2012-6/2014	200	125

Montana Generation

NorthWestern executed a contract with Montana Generation, LLC (“MG”), to purchase 90 MW of unit contingent power commencing on July 1, 2007 at a price of \$35.25 per MWh and ending on December 31, 2018 at a price of \$36.25 MWh (previously referred to as the Colstrip Unit 4 90 MW purchase.) This power purchase contract is the product of: 1) a negotiated settlement between NorthWestern, the Montana Consumer Counsel (MCC), and the MPSC arising from NorthWestern’s bankruptcy, and 2) a RFP process wherein this offer, after independent evaluation, was identified as the most economic base-load offer in the RFP.

PPL Solicitation

NorthWestern participated in a PPL Montana RFP-type solicitation and signed an 18-month contract for 52 MW beginning July 2007 at a discounted price of Mid C less \$5/MWh. As part of the Market-Based Rate proceeding before FERC, PPL Montana offered to sell 100 MW of “discounted power” to qualified load (defined as wholesale and retail customers, but applicants were to serve or have load within the NorthWestern control area). If interest by parties was greater than the 100 MW amount offered, the PPL request for interest stated that the 100 MW was to be allocated amongst the qualified applicants. NorthWestern, in October 2006, requested 100 MW. Its initial allocated share was 47 MW which was subsequently adjusted to 52 MW.

The load resource balance in 2007 reflects the substantial resource acquisitions that have been achieved. In addition to addressing reliability concerns through the contracting of physical volumes, most of these contracts also provide price stability through fixed price contracts. The acquisition activities and their effects on the 2007 portfolio are summarized in Table 2-5, 2-6 and Figure 2-1 below.

Table 2-5 below, reflects the energy added to the existing supply portfolio from the various contracts since the biennial plan was filed in 2005.

Table 2-5, Energy Added

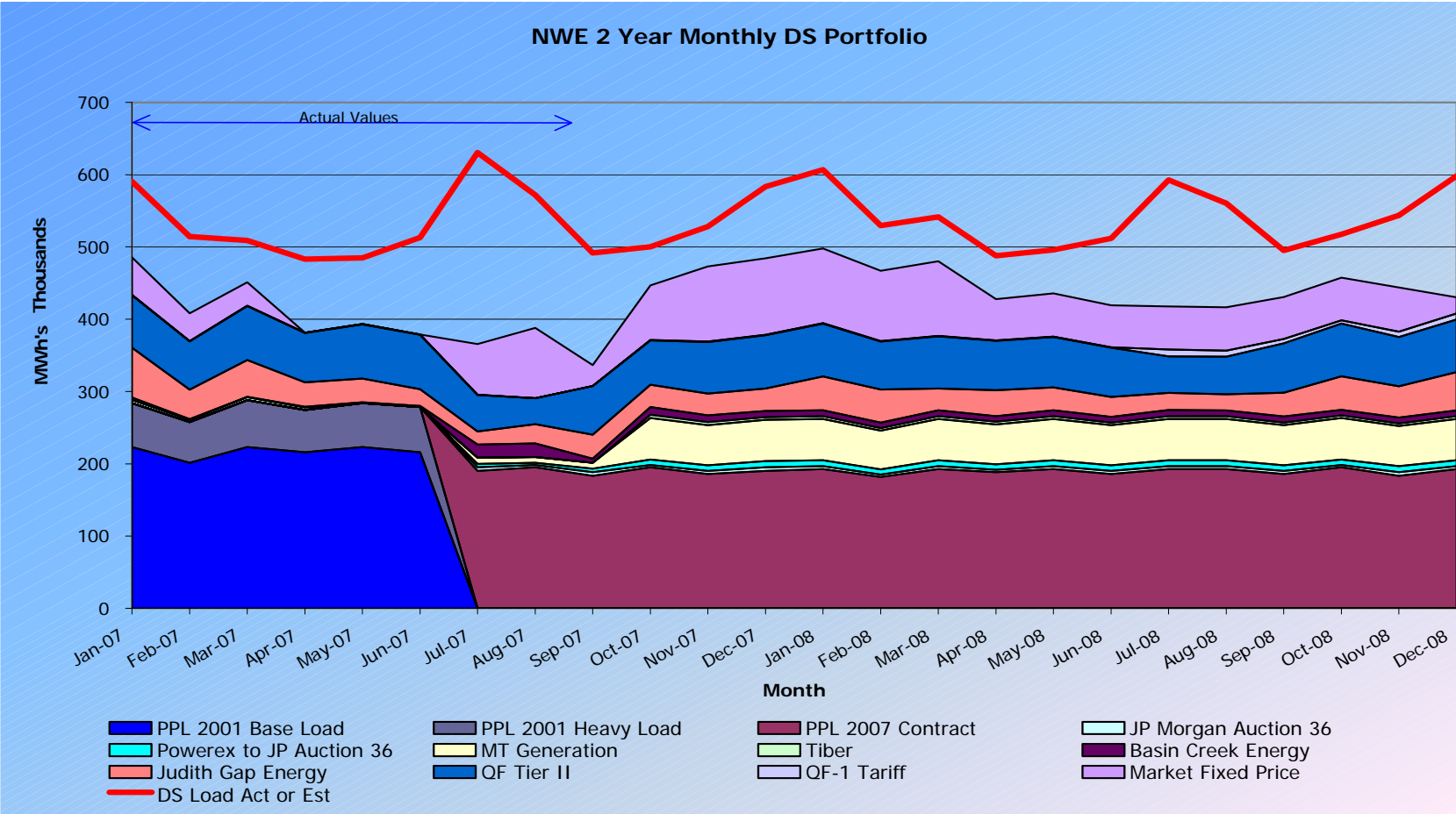
Electric Supply Energy Added After 2005 Plan	
Portion of Contribution to Supply Added by Volume Under Contract	2007 Tracker Year Total Volume Under Contract
2007 Portfolio prior to 2006 Contracts	22%
With MT Generation Contract	33%
With Only PPL 7 Year Contract	70%
With PPL 7 Year and Auction Contracts	76%
With PPL 7 Year, Auction, and PPL Market Contract	84%

Table 2-6 below, reflects the fixed price contracts added to the existing supply portfolio since the biennial plan was filed in 2005.

Table 2-5, Fixed Price Supply Added

Fixed Price Supply Added After 2005 Plan	
Portion of Contribution to Supply Added by Fixed Price Contracts	2007 Tracker Year Total Volume Under Contract
2007 Portfolio prior to 2006 Contracts	20%
With MT Generation Contract	31%
With Only PPL 7 Year Contract	68%
With PPL 7 Year and Auction Contracts	75%
With PPL 7 Year, Auction, and PPL Market Contract	75%

Figure 2-1 Two-Year Quarterly Load Resource Balance



Other Portfolio Activity

Since the 2005 Plan, events other than NorthWestern electric power purchases have occurred that affect the resource portfolio and its costs. These are discussed below.

Proposed and Future QF Contracts

Proposed contracts are defined in this instance as new QFs currently negotiating with NorthWestern or those with a signed contract that are a result of the MPSC's recent QF process (Docket Nos. D2003.7.86, D2004.6.96, and D2005.6.10). Throughout this QF process, NorthWestern received inquiries on 57 possible QF sites, culminating in requests for 45 QF contracts. Out of the requested contracts, 19 exceed the original 3 MW size limit for a long-term contract. Six were requests to renew expiring contracts covering 4.5 MW of power, and the remaining project developers of the 33 MW of requests will be approached to determine the possibility of completing formal contracts. Of the 33 MW of proposed contracts that meet our Tariff requirements, 75% of the megawatts are wind generators, with Hydro at 23% and one biomass project at 2%.

A proposed QF exceeding the new 10 MW size limit can receive a short-term contract with NorthWestern which remains in effect through the first competitive solicitation NorthWestern conducts following the contract execution. Then the QF must participate in the solicitation, be chosen as a portfolio resource, and negotiate a new long-term contract.

Future QF Contracts

In the future as NorthWestern enters into new QF contracts, NorthWestern will work to ensure that as many contracts as possible will meet the requirements of the QF obligations, Renewable Portfolio Standard requirements, and Community

Renewable Energy Project criteria, both of which are discussed in more detail below.

Compliance with Montana’s Renewable Portfolio Standard

In 2005, Montana passed the “Renewable Power Production and Rural Economic Development” (Renewable Act) MCA 69-8-1001, et seq. The MPSC developed and approved administrative rules to implement the Renewable Act in Montana ARM 38.5.8301. Included in volume 2, chapter 2, is the Renewable Portfolio Standard statute. By statute (MCA 69-8-1005(5)), NorthWestern is required to submit annual renewable energy procurement plans to the Commission. NorthWestern intends that this section of the Plan fulfill both the 2007 and 2008 filing standard.

In summary, the Renewable Act requires NorthWestern to acquire a quantity of eligible renewable energy for its resource portfolio. The quantity of eligible renewable energy for a certain year is based on a graduated standard that is multiplied by the utility’s previous year’s sales of electrical energy to retail customers in Montana.

The standards are:

<u>Year</u>	<u>Percentage of sales that must be met through renewables</u>
2008 - 2010	5%
2011 - 2014	10%
2015 and each succeeding year	15%

In addition to the general Renewable Act requirements provided above, beginning in 2010 the Renewable Act requires NorthWestern (and other Montana public utilities) to comply with a Community Renewable Energy Project (CREP) provision. The CREP requires NorthWestern and Montana-Dakota Utilities, as the only two Montana public utilities, to purchase the output from so-called community projects that total at least 50 MW in nameplate capacity. Along with other requirements, a community resource is defined as those less than 5 MW in

size. Thus, NorthWestern understands that to be in compliance with the Renewable Act in 2010, NorthWestern must acquire a share of the 50 MW based upon its percentage of public utility retail sales in Montana for the calendar year 2009. NorthWestern estimates its share of the 50 MW requirement, given the forecast ratio of sales between the two utilities, to be 45 MW. The calculation is shown in Table 2-7, NWE Community Obligation below.

Table 2-7. Community Obligation

NWE Community Obligation in 2010

Estimated MT Retail Sales in 2009*

MDU	675,200
NWE	5,954,518

NWE Percentage of Sales 90%

* MDU # from 2005 Integrated Resource Plan

* NWE # from 2007 Electric Procurement Plan

NorthWestern, to be in compliance with the CREP, must acquire both the energy and the renewable energy credits (RECs) from a project. RECs are the property rights to the environmental benefits from electricity (in one MWh increments) that are created from generation from accredited renewable resources. In most cases, a certifying entity accounts for and in some cases certifies generation to be a recognized to be REC.

The MPSC, in ARM 38.5.8301(2), states that all RECs used to comply with the Renewable Act must be tracked and verified through an entity like the Western Renewable Energy Generation Information System (WREGIS). NorthWestern will be using WREGIS, a renewable energy registry and tracking system for the Western Interconnection, as its certifying entity. The purpose of WREGIS is to ensure that the renewable attributes of a renewable project are not double-counted by multiple parties, and to issue renewable energy certificates as validation of the entitlement to the renewable energy credit. WREGIS is housed

at the Western Electricity Coordinating Council (WECC) and is currently processing applications for Account Holder registration. This system will help ensure the credibility of the "green" value of renewable electricity and facilitate the growth of renewable energy throughout the Western United States.

NorthWestern has calculated an estimate of its obligation under the Renewable Act through 2027. The retail sales forecast used in this estimate was developed as part of this Plan. The yearly obligations are seen in Table 2-8 below.

Assuming the carry forward of Judith Gap generation, Table 2-8 illustrates that in order to be in compliance with the Renewable Act through 2011, NorthWestern does not anticipate needing any additional renewable resource beyond the quantities necessary to meet the CREP standard. CREP resources totaling 45 MW must be acquired by 2010. NorthWestern conservatively applied a 40 percent capacity factor to CREP resources. A capacity factor of 60 percent will delay the need for additional renewable energy resources from a compliance perspective until 2015.

From an implementation perspective, there are a few other key aspects of the Renewable Act worth mentioning. First, if NorthWestern exceeds a standard in any compliance year, NorthWestern may carry forward the amount by which the standard was exceeded to comply with the standard in either or both of the two following years. Second, under MCA 69-8-1007(1), NorthWestern is not obligated to take electricity from an eligible renewable resource unless the resource has demonstrated through a competitive bidding process that the total cost – including ancillary costs – is less than or equal to bids for the equivalent quantity of power over the equivalent term from other suppliers. Lastly, any RECs in excess of legislative requirements can be sold by NorthWestern to reduce Supply expenses for retail customers. Past sales of existing RECs by NorthWestern are shown in Table 2-9 below.

Table 2-8, Amount of Renewable Energy Required to meet RPS

Amount of Renewable Energy Required to meet RPS

439727 MWh from Judith Gap per year (2006 production)

Year	Estimated Supply		RPS Energy Requirement	Net RPS Requirement with Judith Gap (neg = surplus)	NWE Community Resource Requirement 45 MW @ 40% cf 2010 67 MW @ 40% cf 2015	Net RPS Requirement (assumes) Community & Judith Gap additions
	Energy Forecast (MWH)	RPS Std				
2007	5,863,753					
2008	5,915,401	5%	293,188	-146,539	0	-146,539
2009	5,954,518	5%	295,770	-290,496	0	-290,496
2010	5,993,403	10%	595,452	-134,771	157,680	-292,451
2011	6,032,016	10%	599,340	24,842	157,680	-132,838
2012	6,070,404	10%	603,202	188,316	157,680	30,636
2013	6,108,657	10%	607,040	167,313	157,680	9,633
2014	6,146,854	10%	610,866	171,139	157,680	13,459
2015	6,184,979	15%	922,028	482,301	234,768	247,533
2016	6,222,968	15%	927,747	488,020	234,768	253,252
2017	6,260,821	15%	933,445	493,718	234,768	258,950
2018	6,298,578	15%	939,123	499,396	234,768	264,628
2019	6,336,294	15%	944,787	505,060	234,768	270,292
2020	6,373,987	15%	950,444	510,717	234,768	275,949
2021	6,411,504	15%	956,098	516,371	234,768	281,603
2022	6,448,869	15%	961,726	521,999	234,768	287,231
2023	6,486,146	15%	967,330	527,603	234,768	292,835
2024	6,523,351	15%	972,922	533,195	234,768	298,427
2025	6,560,508	15%	978,503	538,776	234,768	304,008
2026	6,619,324	15%	984,076	544,349	234,768	309,581
2027	6,699,745	15%	992,899	553,172	234,768	318,404

Table 2-9, Renewable Energy Credit Revenue

NorthWestern RECs Sold Through Oct. 2007				
MWH's	Price	Revenue	Transfer	
18,225	\$ 1.25	\$ 22,781.25		Transaction 1
100,000	\$ 3.20	\$ 320,000.00		Transaction 2
117,631	\$ 2.74	\$ 322,308.94		Transaction 3
100,000	\$ 3.75	\$ 375,000.00		Transaction 4
50,000	\$ 2.75	\$ 137,500.00		Transaction 5
25,000	\$ 3.45	\$ 86,250.00		Transaction 6
12,004	\$ 3.40	\$ 40,813.60		Transaction 7
50,000	\$ 4.00	\$ 200,000.00		Transaction 8
25,000	\$ 3.70	\$ 92,500.00		Transaction 9
25,000	\$ 3.60	\$ 90,000.00		Transaction 10
25,000	\$ 3.55	\$ 88,750.00		Transaction 11
25,000	\$ 3.50	\$ 87,500.00		Transaction 12
25,000	\$ 3.60	\$ 90,000.00		Transaction 13
25,000	\$ 3.55	\$ 88,750.00		Transaction 14
25,000	\$ 4.70	\$ 117,500.00		Transaction 15
25,000	\$ 4.60	\$ 115,000.00		Transaction 16
25,000	\$ 4.60	\$ 115,000.00		Transaction 17
25,000	\$ 4.50	\$ 112,500.00		Transaction 18