MEMORANDUM

EUGENE WATER & ELECTRIC BOARD

Rely on us.

TO:	Commissioners Helgeson, Brown, Mital, Simpson and Carlson
FROM:	Erin Erben, Chief Customer Officer; Greg Brownell, Supervisor, Pricing & Portfolio Management
DATE:	May 26, 2017
SUBJECT:	2017 Annual IERP Update
OBJECTIVE:	Information Only

Issue

The intent of the 2017 IERP update is to:

- Provide high level context and background of the 2011 IERP
- Explain key drivers and strategy recommendations of 2011 IERP
- Describe progress on strategies
- Examine changes to drivers since 2011
- Convey adaptations to strategy and action item recommendations of the 2011 IERP

Background

The most recent Integrated Electric Resource Plan (2011 IERP) was adopted by the EWEB Board in February 2012.

EWEB's IERP was created over a two-year process. EWEB evaluated its need for new generating resources and engaged a 13 member public stakeholder group to help develop a plan for how EWEB would meet any future resource needs over the subsequent 20 year period. The plan concluded that EWEB had no immediate need for new resources and recommended relying on conservation programs to meet future customer load growth, augmented by market purchases in the event of a new large load. The only instance in which EWEB was forecast to have a potential supply shortage over the 20 year study period was in the instance of an extreme (1 in 10) weather event[1].

Since 2012, Pricing & Portfolio Management has provided the Board with an annual update that examines the key IERP drivers and recommendations to ensure the plan remains prudent.

1 Peak demand and cold temperatures.

Adopted IERP Action Items

1. Meet load growth with conservation.
2. Work with our customers to avoid peaking power plants by using new demand-side management programs.
3. Continue to cultivate regional partnerships.
4. Enact a new large load strategy, if needed.
5. Annually update key planning assumptions and look for material changes.

These strategies were designed to enable EWEB to adapt to a changing regional market without adding to the current demand-supply ("load-resource") imbalance through the addition of new supply-side resources.

Key drivers for 2011 IERP Analysis

1. EWEB and regional customer load growth,
2. EWEB and regional supply availability,
3. Natural gas prices, and
4. Regulatory constraints such as renewable portfolio standards and carbon pricing mechanisms.

These drivers consider both EWEB and the regional load-resource balance and wholesale market prices. EWEB's load-resource balance and renewable portfolio standard ("RPS") requirements taken together determine the amount of surplus or shortfall. Keeping key assumptions for these drivers current helps the Trading Floor optimize near-term contracts and informs long-term planning decisions. The most significant drivers are summarized below:

- EWEB's load is flat or declining and peak load risk remains low
- EWEB continues to be long in energy in a declining wholesale market
- Anticipated carbon legislation may shift outlook for non-carbon resources

The overall strategy of meeting load growth with conservation and not adding new supply-side resources in favor of leveraging demand-side strategies to manage capacity constraints is still prudent given the circumstances the utility is currently facing. This year's update serves to refresh key assumptions that influence resource planning decisions, summarize how changes to assumptions for key drivers shape recommended IERP plan actions going forward, and report on progress toward each of the recommended strategies.

Strategy Progress of 2011 IERP

This section updates each of the following recommended action items as a component of adaptability that aids EWEB in cost effectively meeting customer supply needs.

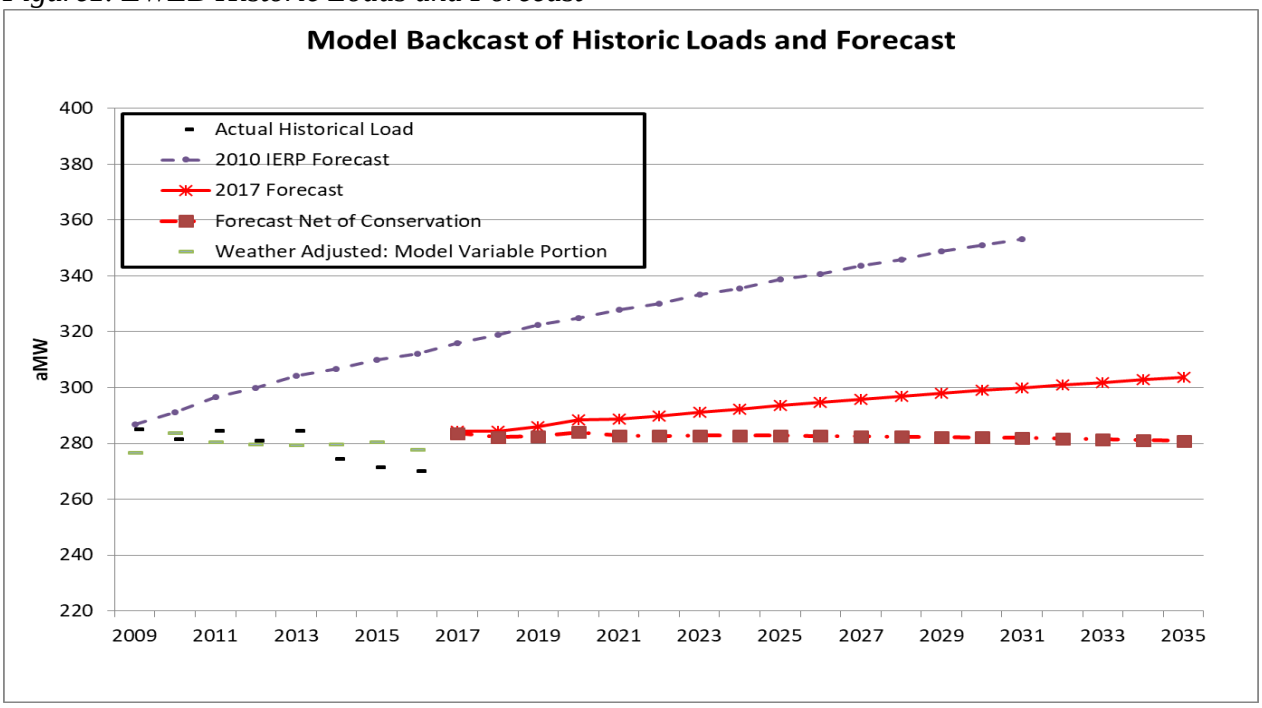
Below is a progress summary of each 2011 IERP action item. Additionally, discussion of adaptations to fit with current industry, market, and affordability trends are included.

Meet Forecast Load Growth with Conservation

EWEB is currently meeting all energy and peak load growth with conservation. However, load growth continues to be lower than anticipated in the IERP updates and forecasts are declining slightly. On a weather adjusted basis, EWEB has offset load growth with conservation. Given recent weather conditions, aggregate load has declined.

The 2017 load forecast model projects a 0.4% annual average growth rate over the next 20 years for the combined residential and commercial classes, which is lower than the original 2011 IERP forecast of roughly 1.0%.

Figure1. EWEB Historic Loads and Forecast



The load forecast tool used by EWEB has been updated over the past several years. A more sophisticated peak energy forecast was developed along with sustained peak forecasts for 1-hr, 18-hr, and 72-hr peaks. Additionally, a customer class-based energy forecast (vs. a simple system average) was developed. The class-based model enhances EWEB's ability to compare actual load growth to forecasts, develop more detailed revenue forecasting, and provides greater insight into cost allocation used to develop pricing design strategies.

The forecasted conservation acquisition target below represents load growth for 2018–2023:

Table 1. EWEB load forecasts over time

Time Period	2010 Forecast	2016 Forecast	2017 Forecast
5 year average growth (conservation target)	**3.1 aMW**	**1.5 aMW**	**1.3 aMW**

Updates to the load forecast have reduced the conservation acquisition targets significantly from the 2011 IERP; however, over the past few years the targets have been declining only slightly. Energy Management Services (EMS) has been very successful in managing customer uptake of program offerings and savings between sectors to meet targets.

In the event that load growth was forecast to be flat or negative (something that was not considered in the 2011 IERP), EWEB has an ongoing commitment to provide a minimum level of conservation service for residential, limited income, and small business customers regardless of load growth. However, based on the lower targets noted above, it's important to note that participation in larger commercial customer programs can fluctuate year over year. In addition, EWEB began targeting a peak reduction for its conservation in 2013 that is determined by the annual load forecast of expected (normal weather) peaks. Unlike the energy target, the peak target is treated as a minimum acquisition threshold since EWEB can actually be short capacity in its highest load hours on a planning basis. Hence, efforts aimed at peak demand reduction have been a little more aggressive than those aimed at meeting EWEB's conservation targets.

1. Partner with Customers to Avoid New Peaking Power Plants

In the 2016 IERP update, staff's recommendation for meeting higher than expected capacity needs caused by extreme weather events was to buy from the market. Capacity in the market continues to be liquid, and as such, this recommendation remains prudent. Staff is considering leveraging the market more to reduce the conservatism inherent in setting the peak conservation requirement as a minimum of annual peak demand growth through EMS. To that end, staff will continue monitoring peak supply/peak demand balances in regional markets to evaluate the most economic strategy to manage peak demands. Demand Response (''DR'') remains a potential, future option and EWEB should continue to advocate for capacity market opportunities in regional policy debates. At this time, this strategy remains prudent and no significant change is recommended.

Open and ongoing projects include the following:

Open Project - Power Hours Pricing Study
The primary objectives of the current "Power Hours Pricing Study" include assessing residential customers' ability to shift load to off-peak periods, providing customers an opportunity to save money, testing metering and meter reading solutions for new meter data streams, performing analysis of data to support load research and demand response applications, and gaining insight into customer responsiveness and acceptance of Time of Use (TOU) pricing. This pilot will end in Q3 2017. EWEB will not be offering TOU pricing for electricity in the near term.

Open Study - Pricing/Rates
EWEB is undergoing a public engagement process to better understand public perceptions of its overall pricing. This public engagement is centered on its base rates (rather than optional customer pricing, such as time of use) and will hopefully allow EWEB is continue to redesign its pricing to meet the needs of the utility and its customers and facilitate future optional pricing as well. The process will continue throughout 2017 and staff will incorporate feedback from the pricing process into its fall pricing proposal.

Open Project - Grid Edge Demonstration
The Grid Edge Demonstration project is intended to show how a consumer-owned utility can help increase community resiliency by providing electricity resources when transmission lines and power facilities are down, by testing "microgrids". In disasters such as earthquakes or floods, distributed renewable power supplies provide critical services during response and recovery. The project will test microgrid technology and PV charged storage options.

The project is intended to provide insight into future options for grid design. Benefits include behind-the-meter alternatives, such as a demand charge reduction, as well as outage mitigation and resiliency. Forward-facing alternatives include arbitrage; BPA Balancing; BPA Block/Slice bill minimization; and peak shaving benefits, including capacity/resource adequacy, transmission charges, DR, and transmission congestion relief.

EWEB has completed preliminary design and is now engaged with purchasing to develop an RFP. The project is expected to be grid interconnected by summer of 2018.

2. Continue to Leverage Regional Partnerships
EWEB actively advocates for our customer owners to preserve and enhance the value of our power portfolio by influencing decision-making at BPA as well as state, regional, and federal energy policy. Since many regional utilities and BPA itself face similar cost pressures, influencing other utilities, identifying allies in the region, and working together is critical to achieving successful and mutually beneficial solutions to arising regional challenges. EWEB uses participation in utility trade associations, along with bilateral relationships with individual utilities and public interest groups, to maintain perspective and awareness of the policy positions of others, and to utilize opportunities to leverage shared interests towards achieving common goals.

Common goals shared with other public power entities in the region are to preserve, protect, and enhance the benefits and competitiveness of the Federal Columbia River Power System for preference power customers. BPA power and transmission contracts represent our single largest resource, and EWEB staff focus on advocacy and alignment with other Public Power Coalition ("PPC") members to keep our BPA power supply and delivery costs competitive in the region, and to enhance the flexibility of their use. EWEB works diligently with other PPC members and staff to find shared alignment toward that end, since it is well understood that a larger voice can often carry more influence during decision making at BPA, in the legislative arena, or the Northwest Power and Conservation Council. In those situations where EWEB finds itself in a minority view, staff advocates for the changes we see as being in the best interest of EWEB's customer owners through the various appropriate forums.

Of particular value this last year was the focus on proposed carbon emissions reduction legislation in Oregon and Washington. EWEB is aligning with other hydro-dominant utilities to advocate for policies which encourage direct and economy-wide carbon reductions through regional market designs or a carbon pricing policies (cap and trade or carbon tax) that fairly compensate the valuable contributions of hydro generation towards carbon emissions reduction goals or mandates.

To this end, staff has continued to work closely with the Public Generating Pool ("PGP"); an organization comprised of 10 large public utilities throughout Oregon and Washington that purchase 34% of the preference power that BPA sells, and that also own or purchase their own non-federal generation. EWEB, and our fellow PGP members, have worked to evaluate several proposed carbon

pricing paradigms, and to procure analysis to test hypotheses on how different legislative approaches value and monetize the environmental attributes of hydropower and other carbon-free energy, including carbon reductions between sectors (i.e., electrifying transportation), as well as the potential inclusion of legacy hydro in state and regional RPS calculations. Additionally, staff is leveraging PGP to focus on broadening EWEB's and BPA's ability to participate in surrounding energy and ancillary services markets (California especially) to supply flexible capacity and energy from NW hydro systems that are greatly needed by the California ISO to integrate the rapidly increasing amounts of solar energy in California and the Southwest, and to ensure proper compensation for the capacity, energy, and ancillary services supplied.

Finally, the Pacific Northwest Utilities Conference Committee ("PNUCC") provides EWEB a forum to learn and dialogue alongside the region's large investor-owned utilities, as well as our usual public power colleagues, regarding changes in the electric industry at-large in the region, as well as leverage PNUCC as a hub for technical analysis, data, and for an annual forecast of regional electric loads and resources.

3. Pursue New Large Load Strategy, if Needed

A key discussion in the 2011 IERP was how to serve a new large load, since it is not anticipated that conservation could ramp up quickly enough to offset that load growth. The IERP recommendation was, rather than acquiring additional resources or entering into new long-term contracts, instead to rely on existing resources, conservation (where possible), and market purchases to meet the increased demand.

Over the past few years, EWEB developed a strategy for serving a new large load that balances the potential risks (i.e., RPS compliance or the potential need to acquire new energy or capacity) with the opportunity presented in growing our customer base (and therefore sharing fixed cost investments) with a new large customer. In balancing the risks and opportunities, EWEB updated its standard offer pricing for large customers (the G-4 pricing schedule2) and established a business growth and retention price rider. These policies allow EWEB to offer incentives to potential customers to encourage growth in the service territory.

Updates to Key IERP Assumptions and Drivers:

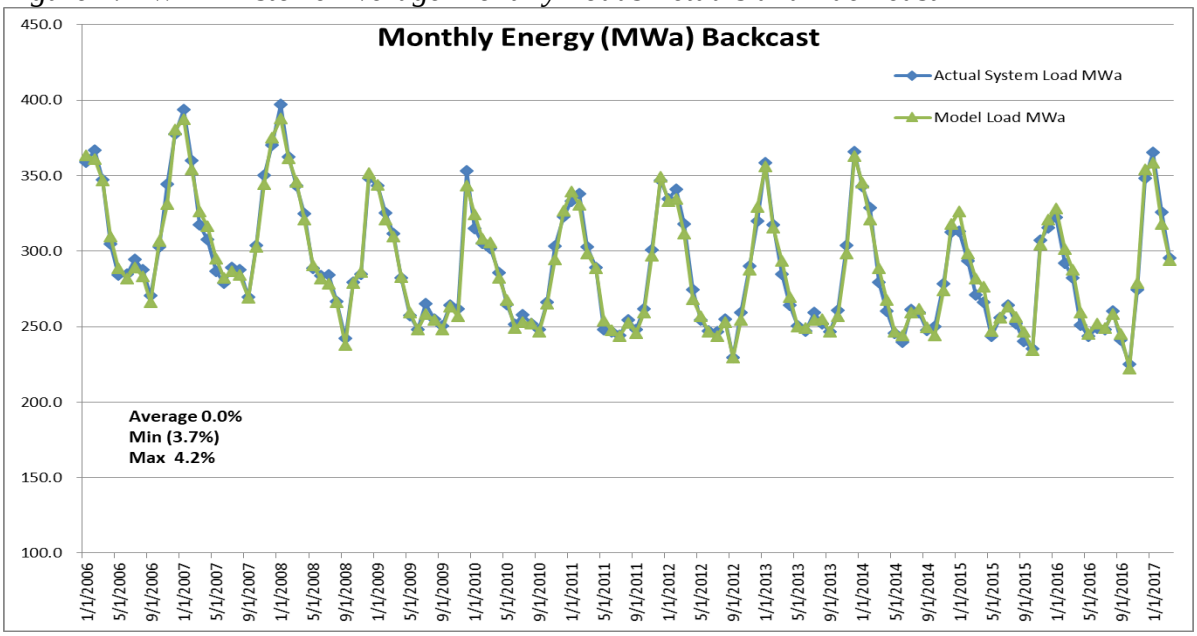
1. Customer load growth

As noted above, on a forecasted basis we anticipate average load growth, absent conservation, to be about 0.4%. Load has generally been flat or declining due to prior EWEB conservation efforts, several years of warmer than average winter temperatures, and factors not explicitly modeled in the load forecast (e.g., conservation beyond EWEB programs and fuel switching from electric to natural gas appliances). Staff is exploring ways to enhance the forecasts to capture factors contributing to declining forecasts.

2 Under this price plan, a new large single load (NLSL), defined by BPA as 10 MW or greater, the customer would be responsible for their share of RPS compliance costs. Current load growth forecast is less than 1% and EWEB currently has about 10 aMW of headroom from its contracted BPA high water mark (HWM). If general load grew and we received more BPA entitlement to serve, the incremental BPA purchase would be applied to the legacy hydro exemption for RPS compliance. In addition, EWEB currently has more than 1 million banked RECs, though most are unbundled.

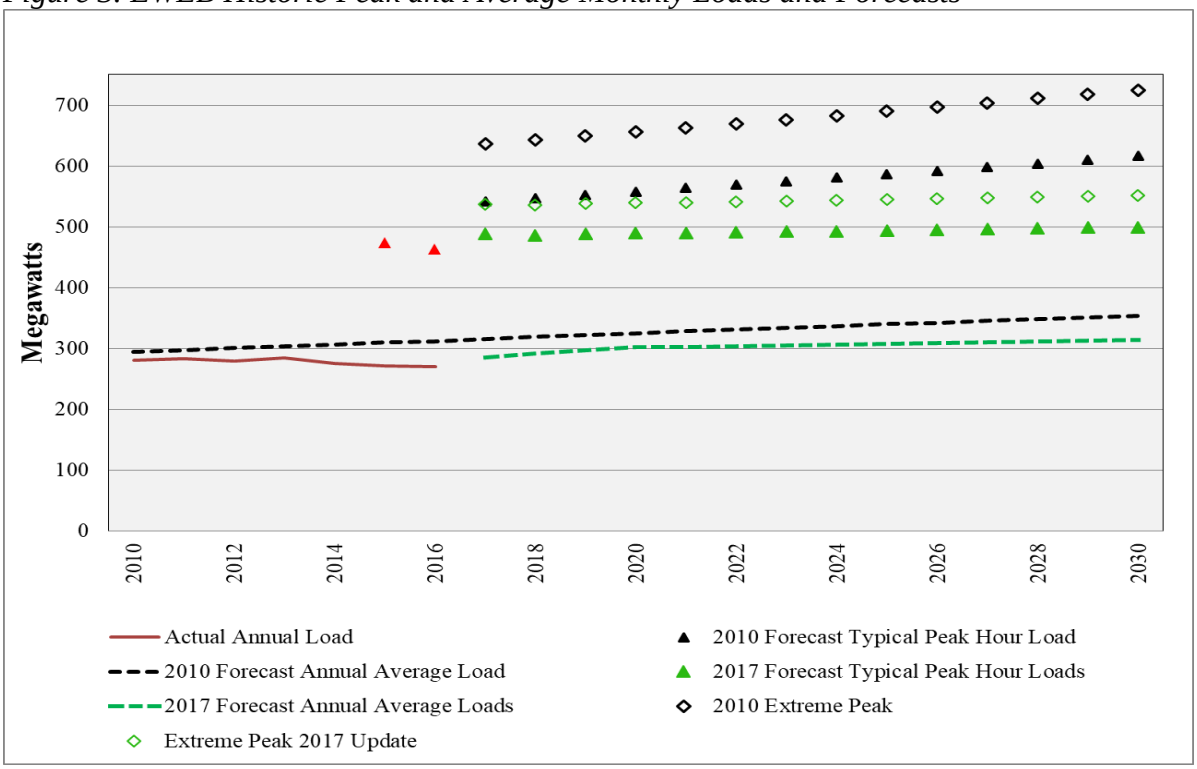
The accuracy of the load forecast is recognized as an important business driver for supporting resource decision, financial planning, and conservation targets. Therefore, in addition to the forecast enhancement described above, a back cast is produced monthly to test the accuracy of the model.

Figure 2. EWEB Historic Average Monthly Loads Actuals and Back-cast



Over the last few years EWEB has worked to develop a more refined peak forecasting model. Below is the average and peak demand historically and projected into the future. In addition to forecasting peak demand under normal conditions we forecast peak demand under conditions where the system is constrained.

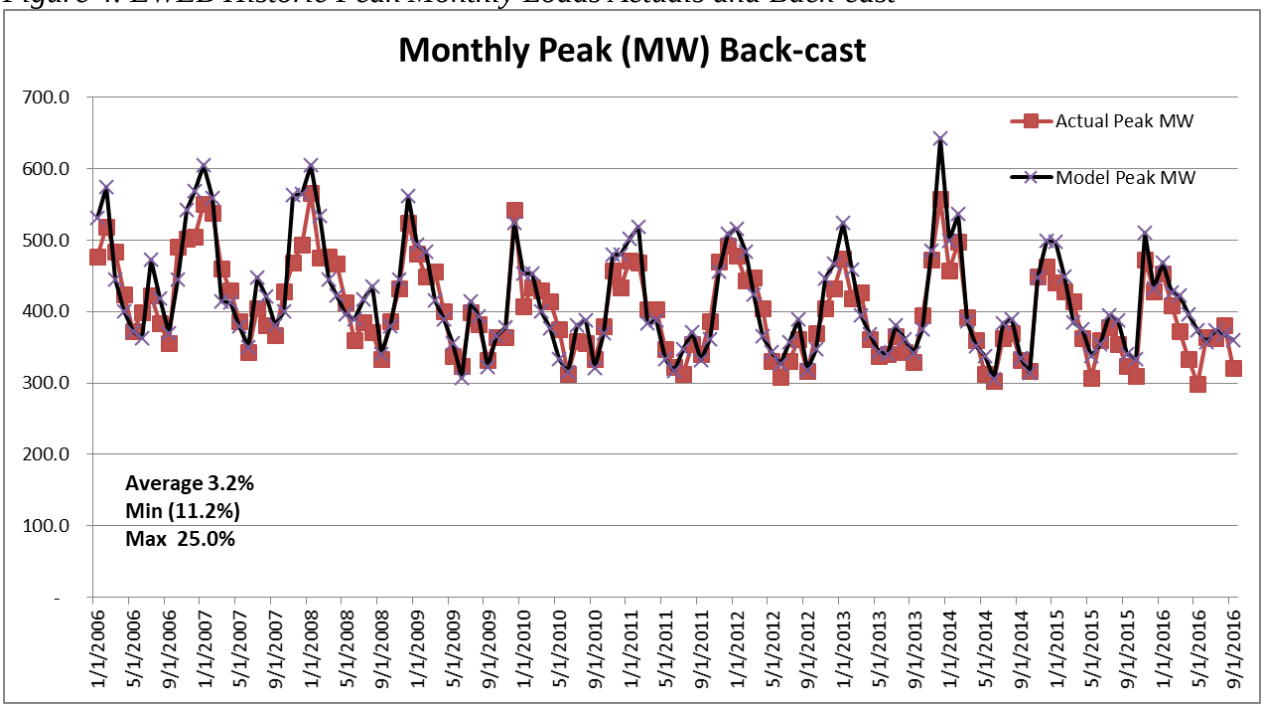
Figure 3. EWEB Historic Peak and Average Monthly Loads and Forecasts



The accuracy of the peak demand forecast is also tracked and monitored to maintain accuracy and inform future model modifications. The peak demand model is used to estimate peak hourly demand for a respective month, and typically has higher levels of variance compared to the average monthly demand. As a result, it is more challenging to anticipate the demand in a single hour than to forecast the average over the month.

While staff continues to monitor and track the variance associated with the peak demand forecast, its application is more limited than the average demand forecast. For example, the average monthly demand forecast is incorporated into the revenue forecast that informs financial planning, as well as setting risk management compliance metrics. The hourly peak demand it an important metric to monitor and potentially informs resource planning decisions, but has more limited applications and uses in the organization.

Figure 4. EWEB Historic Peak Monthly Loads Actuals and Back-cast

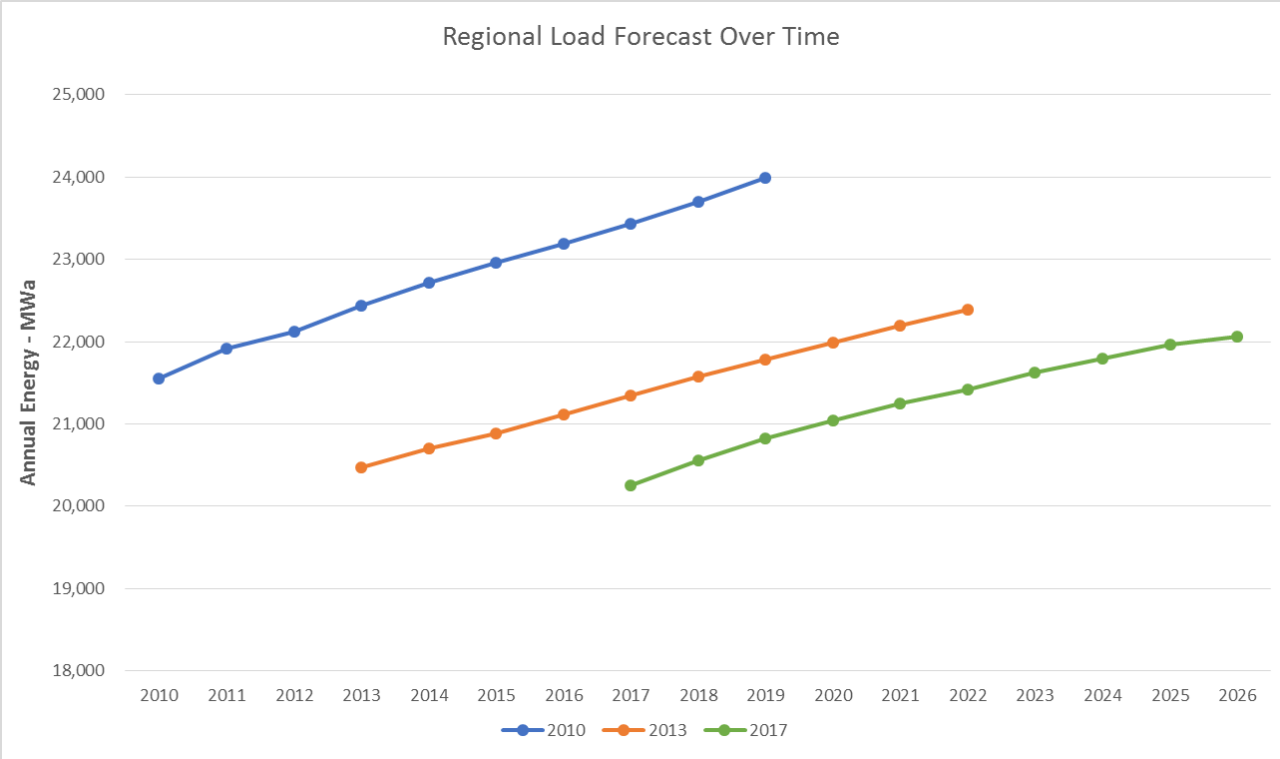


The variance of the weather adjusted energy forecasts are within plus/minus 3% over the past decade. This means the methodology works well. In comparison with forecasters from other utilities in the Northwest, staff's forecasts are relatively accurate. The peak load forecasts have shown a larger variance and in recent years, these forecasts have tended to be higher than the weather adjusted actuals. Peak demands are more difficult to forecast due to greater volatility in hourly weather in comparison to monthly or seasonal average weather which drive energy forecasts. Also, the peak demand variances show peak forecasts tending to be higher than weather adjusted actuals.

2. Regional Load Growth

Although individual utilities differ, in aggregate regional load forecasts continue to slip3.

Figure 5. Regional Load Forecast over Time



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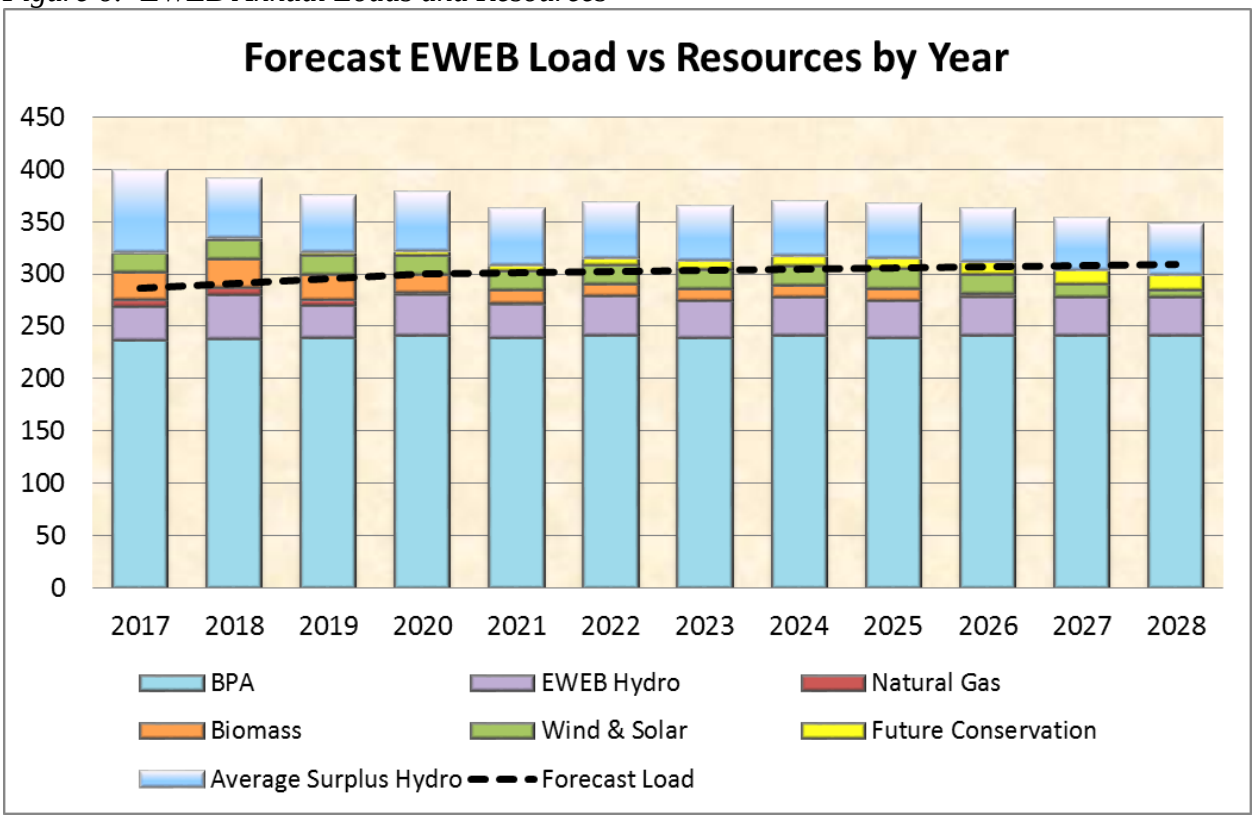
3 Regional data source from Pacific Northwest Utilities Conference Committee (PNUCC), 2017 Northwest Regional Forecast

3. Generation Supply availability

EWEB

Resource adequacy on a planning and operational basis is the main goal of integrated resource planning. If EWEB's proposed strategy was no longer sufficient for maintaining resource adequacy, a new IERP would be warranted. Figure 6, below, shows EWEB's annual energy supply from different resource types, annual load forecast, and future conservation assumptions under the current resource plan recommendation.

Figure 6: EWEB Annual Loads and Resources



On an annual basis, EWEB has more than sufficient resources to serve its customers' energy requirements even under drought conditions for the next 10 years.

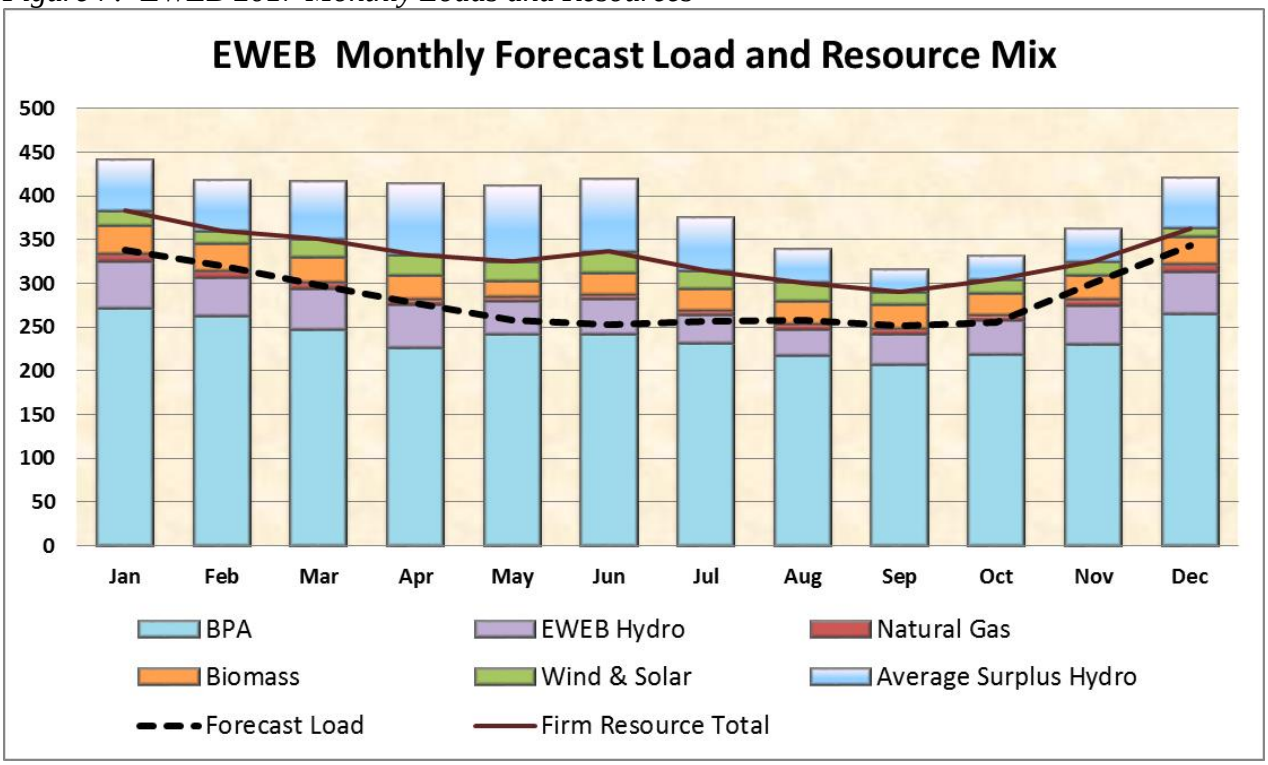
Historically, planning guidelines considering critical year hydro conditions recognized and leveraged asymmetric market exposures exhibiting significantly higher and volatile prices during dry hydro years. Surplus hydro resources from the Pacific Northwest during most years (below average to wet years) were sold into neighboring markets, especially CA, providing significant revenues offsetting the costs of surplus resources. Staff is reconsidering planning guidelines to recognize fundamental changes to regional supply/demand balances in the caused by renewable development and the abundance of natural gas caused by new and effective exploration technologies. Nevertheless, this volatility is still occurring but less frequently and during different times of the day, due to the

variable nature of renewable resource production and patterns. Shorter-term procurement and hedging continues to work toward mitigating financial exposure created by price volatility using trading and hedging instruments available in the wholesale power markets. Also, in the longer-term, factors including changing market volatility are expected to increase the value of flexible resources, including hydro-electric, relative to conventional generation technologies which are less flexible.

While there are hours that peak capacity is not available from EWEB owned, co-owned or contracted for resources, this shortfall and any monthly variations in resources or load are handled through EWEB's Power Operations group by trading activities that are in compliance with EWEB's mid- and short-term risk guidelines.

On a monthly basis, EWEB's aggregate load profile changes a bit from the annual view shown above. In Figure 7, below, it is clear that in the fall EWEB has far fewer resources available. This is due to the seasonal nature of water flows in the region.

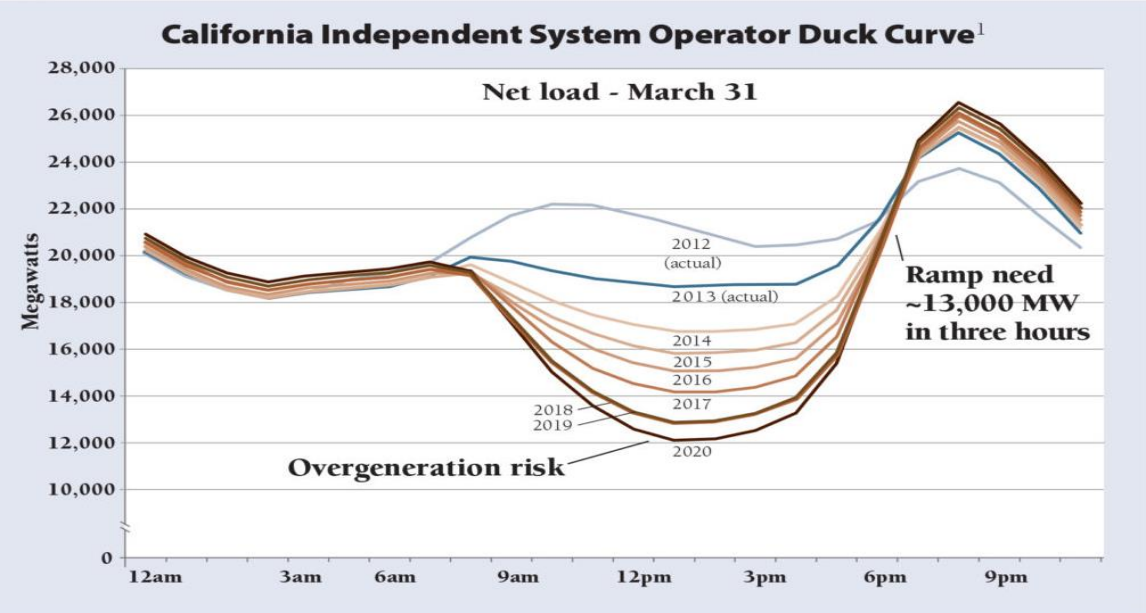
Figure 7: EWEB 2017 Monthly Loads and Resources



Regional

Historically, California and the PNW have exchanged energy on a seasonal basis. During the winter, power flows to the PNW from California, and vice versa during the summer. Recent RPS compliance (50% RPS mandate) and rapid growth distributed solar is changing the power flow dynamics. The magnitude of this new and growing resource mix is causing system-wide operational challenges. Most base load resources cannot meet the ramping requirements, and new flexible resources are needed to rapidly respond to these variable renewable RPS generators. The net load impact is widely referred to as the Duck Curve.

Figure 8: CAISO Duck Curve



Hydro resources with storage, DR, and emerging battery technologies are examples of fast ramping, potential flexible solutions to manage operational issues.

On a firm energy basis4, the region is generally in deficit in winter months and adequate in the summer months. Regionally, winter peaking has become the planning focus. In 2021, the combination of the Boardman Coal Plant going offline, expected load growth, and a planning margin at 15 percent for the year, lead to a need for new resources totaling about 3,200 MW on a firm resource basis. The summer is also a planning concern because average hydro generation above firm is only about half winter flows. Additionally, high peak demand can occur in the south and southwest creating competition for thermal (typically gas) resources, and constraints on transmission. As a result, new resources are likely to be built that will supply summer capacity also, contributing to the capacity surpluses during higher than critical hydro years. Nevertheless, volatility is expected to occur infrequently and during unexpected conditions including major interregional transmission related events, forced outages of large power plants, and extreme weather events. The cost of infrastructure expansion to dimensioning system capacity that maintains high levels of reliability during these conditions is prohibitively costly.

4 "Firm" refers to drought conditions (worst year in last 80 years). Since the PNW generation is largely hydro (65% – 75%), planning must consider extreme drought impacts on the system. Regional data source from Pacific Northwest Utilities Conference Committee (PNUCC), 2017 Northwest Regional Forecast.

Figure 9: Regional Winter Peak Resource Balance

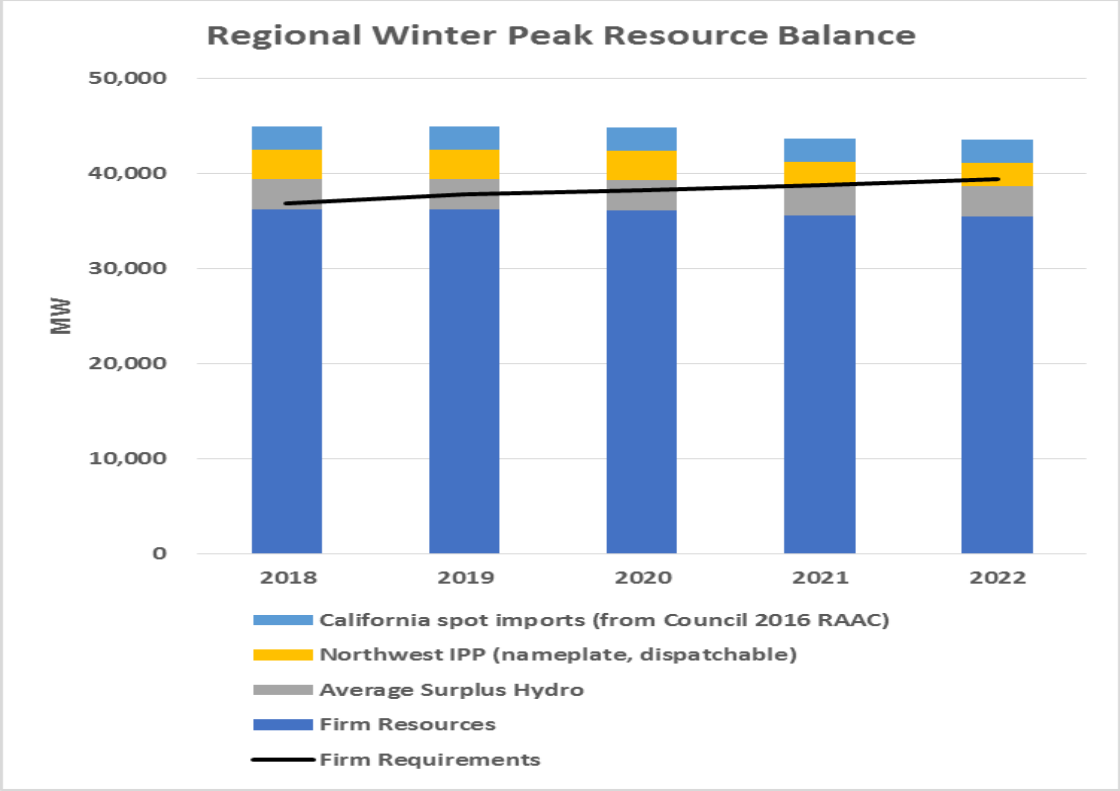
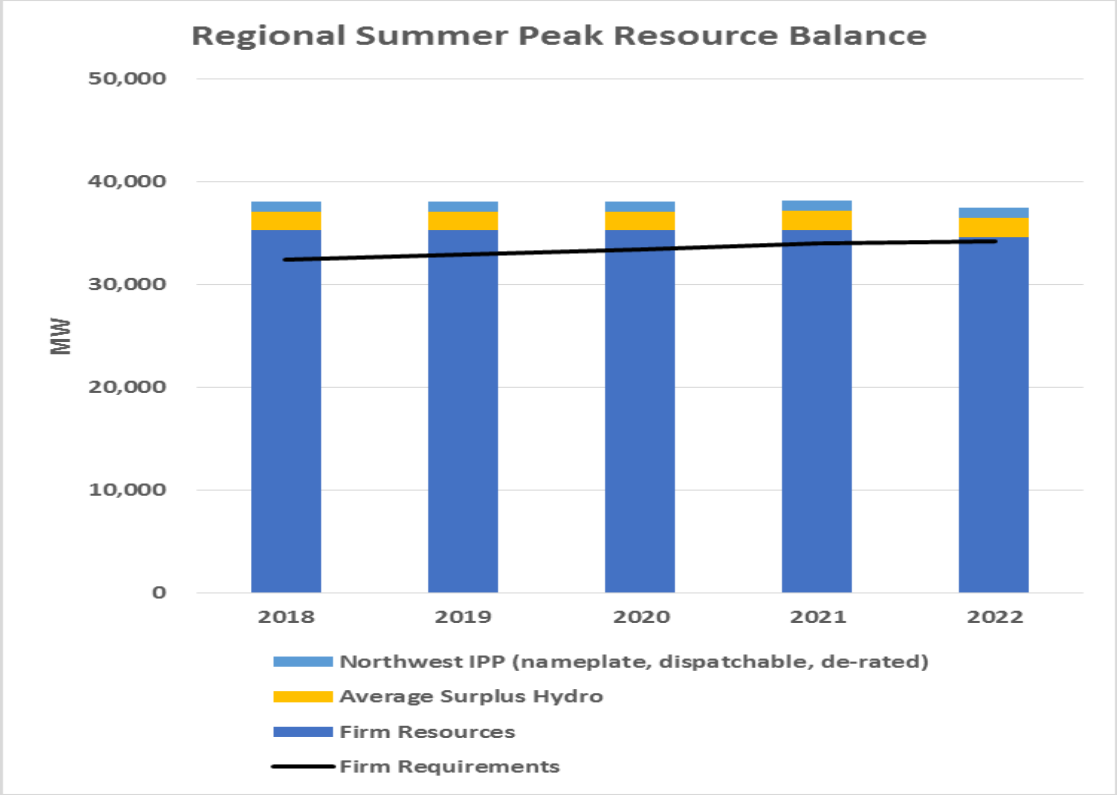


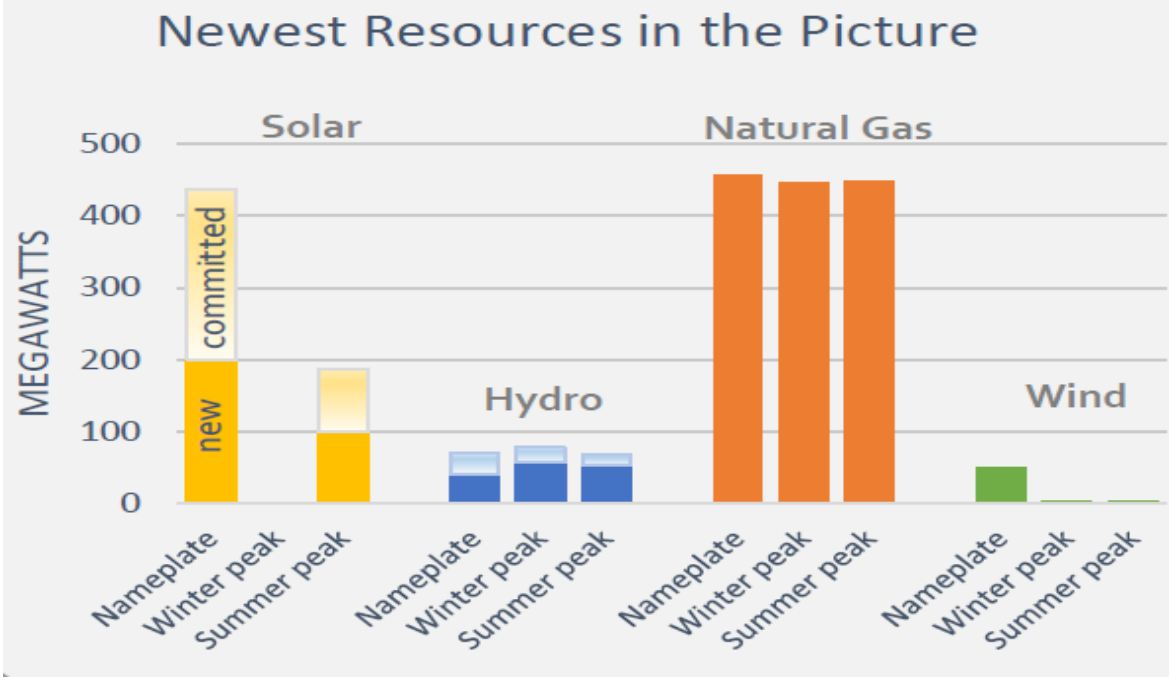
Figure 10: Regional Summer Peak Resource Balance



In summary, regional supply on an expected5 basis is adequate under most conditions through 2021, when coal retirements require new generation replacements. Last year, regional utilities acquired about 750 MW of generation. Most of these additions are thermal units (e.g., PGE's Carty Power Plant) that are capable of supplying both energy and peaking capacity. The rest of the additions are solar and wind projects developed under PURPA, as well as a few hydro upgrades. It is anticipated that the region will continue to add flexible thermal generation to balance future renewable generation (driven by RPS requirements).

5 Expected generation for the hydro system represents the average output rather than output under drought conditions.

Figure 11: Recent Regional Resource Builds



PNUCC

Resource Adequacy and Portfolio Balance

EWEB analyzes resource adequacy by measuring the total capacity contribution of each resource against extreme load conditions. Results of this analysis are shown in the tables below.

Figure 12, below, demonstrates resource adequacy under somewhat constrained conditions (i.e., a 1-in-5 peak load year. EWEB reserve margin would be greater than shown 4-out-of-5 years).

Figure 12: 2020 Average Supply & 1 in 5 Winter & Summer Peak Conditions

Condition	Duration	Load	Supply Carmen	Supply Slice	Supply Other	Supply Total	Adequacy shortfall or surplus (aMW)	Calculated Reserve Margin (%)
1 in 5 Winter Peak with Average Hydro	1-Hour	522	91	204	200	495	-27	-5%
	18- Hour	469	58	190	200	448	-21	-4%
	72-Hour	418	24	152	196	372	-46	-11%
1 in 5 Summer Peak with Average Hydro	1-Hour	384	72	191	165	418	34	9%
	18- Hour	346	36	179	165	370	24	7%
	72-Hour	298	17	155	161	322	24	8%

As recommended in the 2016 IERP, given the current availability and low cost of resources on the wholesale market, EWEB manages its winter peak risk by buying on the short term market rather than securing long-term resources. At this time, this strategy remains prudent and no change is recommended.

Figure 13, below, demonstrates resource adequacy under expected conditions in which both EWEB's demand and supply are projected under average conditions.

Figure 13: 2020 Average Supply & Average Winter & Summer Peak Conditions

Condition	Duration	Load	Supply Carmen	Supply Slice	Supply Other	Supply Total	Adequacy shortfall or surplus (aMW)	Calculated Reserve Margin (%)
50/50 Winter Peak with Average Hydro	1-Hour	487	91	204	200	495	8	2%
	18- Hour	440	58	190	200	448	8	2%
	72-Hour	392	24	152	196	372	-20	-5%
50/50 Summer Peak with Average Hydro	1-Hour	370	72	191	165	418	48	13%
	18- Hour	331	36	179	165	370	39	12%
	72-Hour	288	17	155	161	322	34	12%

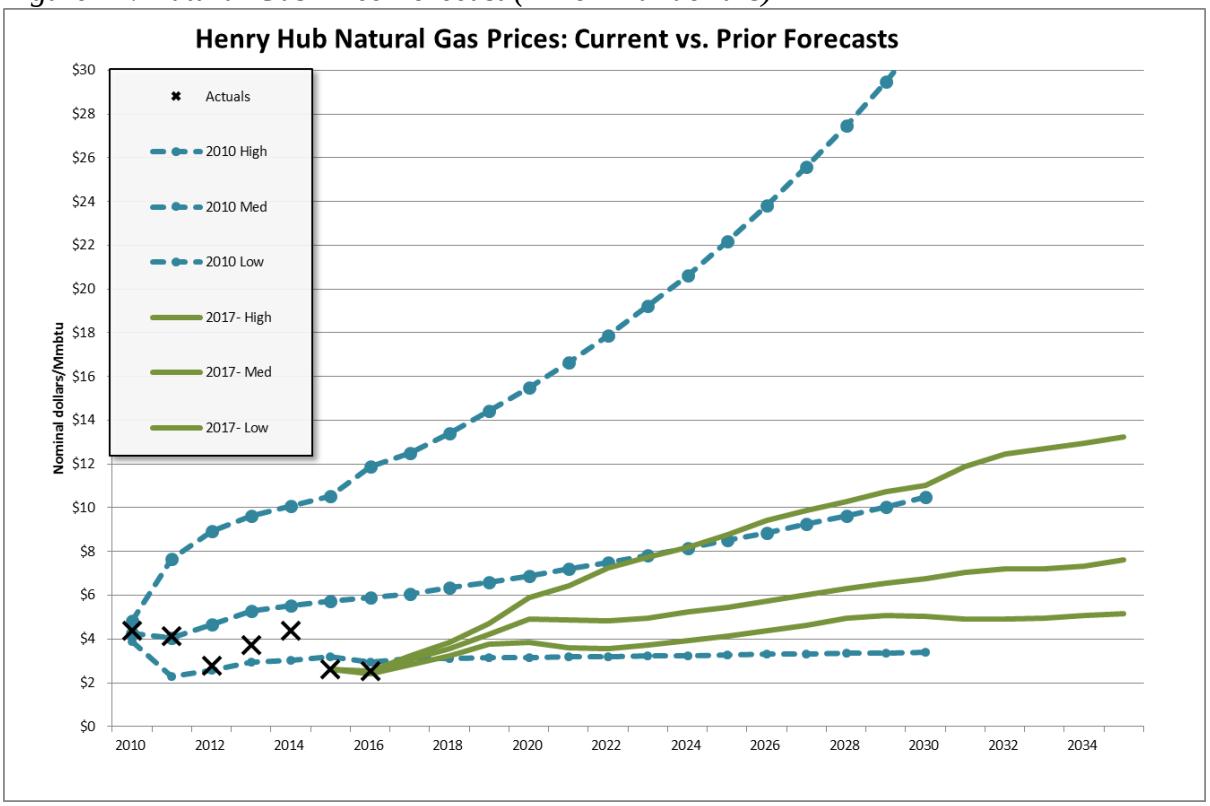
4. Natural Gas Prices

The forecast of natural gas prices was initially updated in late 2010 for the 2011 IERP public process. The forecast at that time was preceded by a period of volatile and historically high prices. Since then, hydraulic fracturing ("fracking") of shale gas deposits has become established as a major transformational force for natural gas markets.

Forecasted gas prices have been reduced significantly to reflect increased levels of shale gas production. There is still an upward bias in the natural gas forecast as low gas prices are anticipated to increase demand in domestic consumption (for electric generation and industrial processes) and increased exports liquefied natural gas (LNG). Given the RPS and anticipated carbon legislation, natural gas generation will likely play a major part in WECC power markets for the foreseeable future6. For now, natural gas is the go-to marginal resource for integrating renewable generators. Additionally, natural gas has a lower carbon content than coal, and is the likely near-term successor to coal-based resources. Given these factors, robust analysis of a range of natural gas prices, and the potential impacts of changes in supply and demand, continues to be a key component of resource planning. Figure 14, below, illustrates the range and downward trends of natural gas price forecasts comparing those available during development of the of the 2011 IERP the most recent EIA forecast of low, medium, and high natural gas prices.

6 The gas forecast depicted in the chart below examine a range of influencing factors including the US economy, investment in natural gas technologies and the price of oil. It does not appear to weigh in the potential impacts of carbon & renewables legislation on natural gas demand.

Figure 14: Natural Gas Price Forecast (in nominal dollars)7

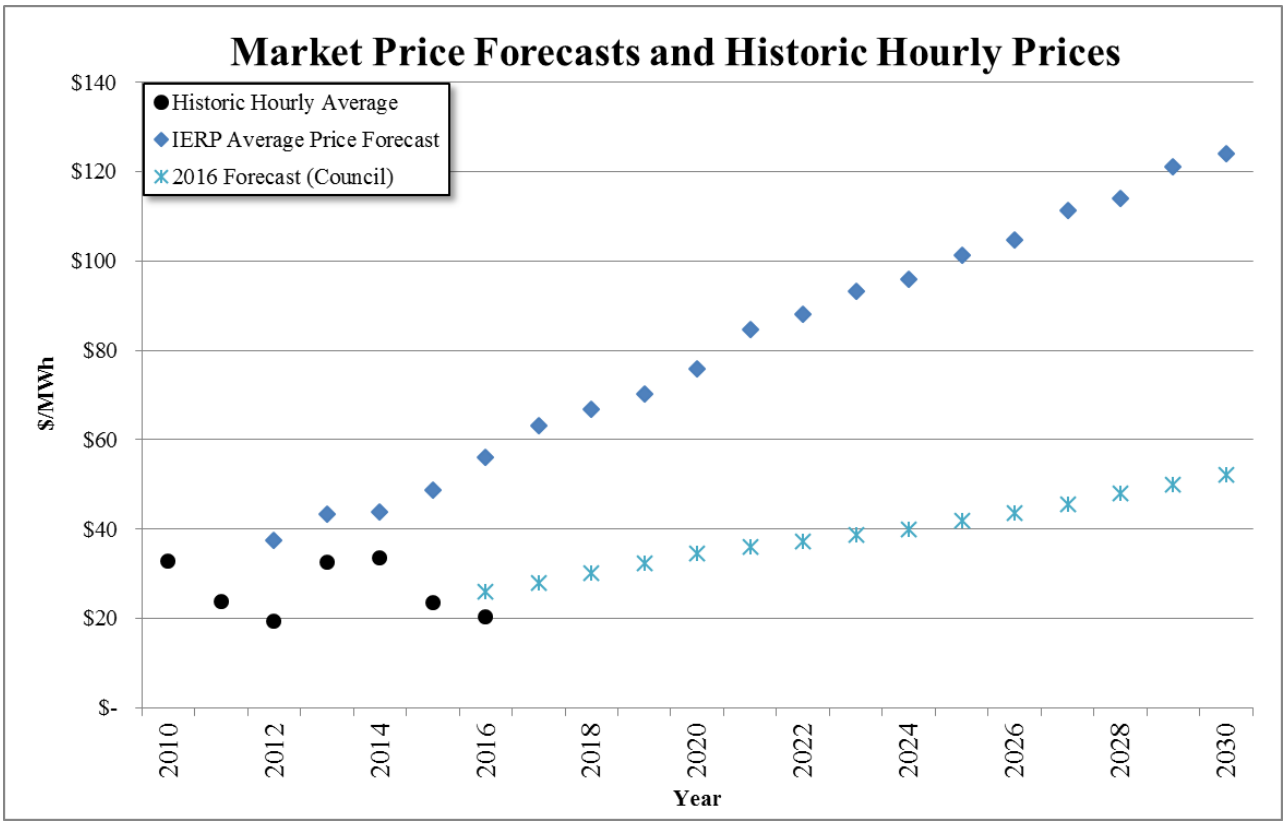


5. Wholesale Market Prices and Impacts on Utilities

Low customer demand, low natural gas prices, and an abundant supply of energy resources have all contributed to continued low wholesale market price forecasts, as detailed in Figure 15, below.

These trends negatively impact the value of hydro secondary revenues which the region uses to offset customer costs. Based on current load-resource forecasts the region, and EWEB, could be facing this paradigm for years to come. However there are some emerging factors that may improve the market value of select resources. First, there is continued regional discussion around carbon and emission management (mentioned above), which could positively shift the market outlook for non-emitting resources. In addition, resources with dynamic flexibility may realize improved market value, given the increased need to integrate newly-built, variable resources. Further, dynamic capacity can support the regions desire to create non-wires solutions for our overburdened transmission infrastructure. Understanding these trends and influencing the process will be a focus of EWEB staff as we position the portfolio to respond to these drivers.
Figure 15: Wholesale Power Price Forecast (in nominal dollars)8

7 For 2017 the high, medium, and low gas prices are derived from the Energy Information Administration's (EIA) 2017 Annual Energy Outlook.
8 The 2016 power price forecast is based on the Northwest Power and Conservation Council Draft 7th Plan. The Council did not update for 2017.



6. Regulatory Constraints – RPS & RECs

EWEB continues to monitor its obligations under the RPS adopted by the Oregon legislature in 2007, and to adjust our compliance strategy accordingly as we move forward. Presently, EWEB has not experienced a year-end RPS obligation to retire RECs, due to the offsetting characteristics of our hydroelectric resources and BPA purchases. Given current load growth projections, absent a new large load, we do not forecast a compliance requirement over the next ten years.

Initially, the 2007 RPS standard required that 5% of the load for the top three utilities (by size) be provided by renewable resources (net of any hydro resources and BPA purchases). Beginning in 2015, the requirement increased to 15%, to be followed by 20% in 2020 and 25% in 2025. Recent legislation further increase this requirement only for the State's IOUs, advancing future RPS compliance targets to 50% of load. This legislation will not directly impact EWEB's compliance projections; however, California's RPS requirement of 50% will have profound impacts on the value of power in the wholesale markets throughout the WECC. Additionally proposed legislation for a 100% RPS in California could have greater impacts on these markets. As regional RPS requirements grow, we anticipate continued downward pressure on wholesale power market prices.

In summary, EWEB has more than sufficient renewable resources for meeting its Oregon RPS requirements; however, the surplus of the portfolio creates the need to balance surplus REC sales with future compliance tradeoffs. RPS, future environmental regulations, and policy compliance will continue to be an important consideration for long term portfolio optimization decisions into the future.

Recommendation

Management is providing this annual update as part of its commitment in the 2011 IERP. Additionally, staff will exercise the flexibility inherent in the 2011 IERP in meeting its policy objectives, including supporting EWEB's affordability goals. This includes continued monitoring, engagement, and a comprehensive review of:

- Conservation levels (declining load forecasts).
- Development of markets which create value from our resources to manage regional energy oversupply and new services emerging in these markets.
- At this time, EWEB's current portfolio remains adequate for meeting resource adequacy needs for at least the next 5 years; therefore a new IERP is not recommended.

Requested Board Action

No action is required at this time.