

Executive Summary

The District has performed an Integrated Resource Plan (IRP) which serves as a guide for future resource acquisition activities. The plan fully fulfills the District's obligations under HB1010 and provides the platform for future resource plans as required under I-937. Equally important as the regulatory requirements, the IRP is the first major product from the District's resource planning staff – the District has now entered an era of ongoing resource planning to ensure the long term energy needs of our customers are met in a cost effective and environmentally friendly manner. The current climate of high expected electric demand growth within the country, volatile energy markets and much regulatory and policy uncertainty on the Regional and National scenes means that the District will have to maintain an active ongoing resource planning effort to ensure the District's mission of providing excellence in service is maintained.

The IRP has followed industry standard approaches. The Plan is truly integrated in the sense that it considers not only supply side resources but also demand side resources such as conservation and energy efficiency. Moreover, while focusing on the least cost path forward, the IRP also considers an additional dimension of risk. Thus, the path forward recommended by the IRP attempts to not only achieve the best plan forward if all our assumptions come about but it also contains sufficient flexibility to withstand expected shocks that may arise.

The IRP examines the District's current resource portfolio, current and future expected electric demand, numerous supply and demand side resources and future energy market conditions under a number of likely future scenarios. Based upon this analysis, the future energy and capacity resources needs of the District are estimated. In addition, to examining only the physical energy and capacity needs of the District, the IRP also considers the District's economic resource position and the District's ability to meet its obligations under The Energy Independence Act (I-937). I-937 has added an additional requirement to standard resource planning. In addition to cost effectively meeting the District's long term resource needs, the recommended plan must ensure that the District can meet the qualifying renewable portfolio standards that I-937 makes a legal requirement.

After estimating the District's future resource (and qualifying renewable resource) needs, the IRP examines an extremely wide array of supply and demand resources. The District planning staff has made every effort possible to ensure any reasonable resource technology was included for initial consideration. Only after applying a methodical screening process to ensure a technology could be expected to be commercially viable (i.e. not a research project) and economically justifiable was any technology considered for removal from the pool of candidate alternatives. In all cases, supply and demand side resources are treated equally – in other words, there was no favoring of resources from either side of the ledger, it was only the unique characteristics of any resource that drove its ultimate disposition in the plan. While this IRP has gone to great lengths to consider a wide spectrum of resource alternatives, staff still has much to learn about many of these resources alternatives. This work will be ongoing.

Based upon the District's capacity and energy needs and the promising resource alternatives, the IRP then conducts a future portfolio analysis. The goal of this activity is to ensure the suite of resource alternatives recommended are considered in a holistic way. Failure to consider the effects of any new resource or package of resources outside the context of the entire District portfolio can easily lead to the wrong conclusions. Great care has been taken to ensure that any resource additions recommended will be complementary to the portfolio expected to be in place at the time of acquisition. This activity should ensure that future resource acquisitions not only provide a cost effective option but also keep overall District power supply risk as low as possible.

The results of this IRP are very encouraging. With respect to the I-937 qualifying resource portfolio standards, the District is on track to meet its obligations with its current wind energy and incremental hydropower additions. Moreover, in an era of tremendous uncertainty regarding the value of resources due to policies associated with climate change, the District's clean existing resource portfolio and its specific incremental clean resource alternatives provide a high degree of insulation from the negative effects of a very uncertain future. In fact, the recommended plan should make sure the District is well positioned to benefit from a carbon constrained future.

While the District is facing high electric demand growth over the next three years, its current portfolio is very solid in the near term. The District has a current and projected firm energy and capacity deficit (physical) but its contractual economic resource (EUDL) provided for within the long term Priest Rapids Project (PRP) Power Sales Contracts (PSC) virtually assures that the District will be able to meet all of its firm capacity and energy physical obligations at very close to PRP cost. In the intermediate term (3 – 7 years), District planning staff is forecasting decreasing regional physical capacity margins in the Northwest region. This phenomenon is important because under tight physical capacity margins markets can become very unstable and there is a significant risk in assuming the District's economic resource can readily be converted into reliable physical supply in any given year.

The recommended plan of action for the District is as follows: continue to employ the current baseline approach of relying on the firm physical capabilities of the existing physical resource portfolio augmented by forward market purchases, financed by the proceeds of the economic EUDL resource, to achieve firm load and resource balance over the next three to five years. During this period, the District should ramp up its conservation and energy efficiency efforts focused upon achieving all cost effective demand side resources up to the District's long run avoided cost. These efforts should include aggressively pursuing multilateral arrangements with the District's PRP purchasers so as to allow the District to access its cost effective conservation resource while preserving its economic position under the power sales agreements. The recommended approach for this effort would be to declare incremental conservation resources a EUDL resource which would provide the purchasers with EUDL price certainty while preserving District economic benefits. Parallel to these efforts, the District should pursue additional supply side resources to provide long term physical firming to the monetary EUDL resource as a hedge against future market disruptions and

serve the residual energy demand beyond the PRP Project capacity. The recommend resource additions should be low carbon emitters, capable of providing firm energy and capacity so as to reduce the District's exposure to energy supply volatility and should preferably be heavily fixed cost resources so as to minimize the District's exposure to volatile fuel prices. Specifically, the District should continue to pursue its in-county and Yakama biomass projects (13 MWa), development of 1.5 MWa of hydrokinetic energy within the in-county canal system, development of the full generation potential on the Wapato Irrigation Project in partnership with the Yakama Nation and the development of a natural gas fired cogeneration resource to serve the combined heat and power needs of major industrial customers. A long run portfolio comprised of these resources coupled with the existing resources would provide a flexible, diverse, stable cost and clean resource base from which all firm obligations could be met while ensuring cost stability for our customers. The District should also keep abreast of developments and opportunities associated with the best available clean coal technology because this technology, once proven, has many attributes which could make it attractive. In addition, the District should also provide a "Retail Energy Solutions" function to assist our customers with small scale energy projects such home based net metered solar power.