Undertaking 135: Best Practices in IRP

Paul Chernick to provide Board with a number of good examples of jurisdictions that have done good integrated resource planning; will provide links to both those plans and the Board orders relating to those plans if available.

Response

I have divided this undertaking into a listing of IRP reports that are particularly useful, and IRP processes that allow for maximum input from stakeholders, exchange of information and perspectives, and opportunities for the utility (or other Plan authors) to benefit from external input.

Clear and Useful IRP Reports

In responding to this undertaking, I excluded IRPs for restructured utilities, since the generation-level options they face are highly constrained. The following IRPs clearly lay out the utility's supply- and demand-side decisions, and in some cases transmission decisions, possible future conditions, the cost of various combinations of resource strategies and future conditions, risk exposure for the various strategies, and the input assumptions. A good IRP presentation does not necessarily imply that the preferred plan in the IRP is the best available, or even that the analyses were all conducted appropriately. At the very least, a good IRP report, especially in conjunction with extensive stakeholder involvement in preparation of the IRP (as opposed to mere briefings of stakeholders on the utility's assumptions and analyses), allows the stakeholders to identify how their expectations and preferences differ from the utility's, and usually to determine roughly how the plan would change if they substituted their preferred inputs. I therefore include information on both IRP documents that are particularly useful, and IRP processes that allow for maximum input from stakeholders, exchange of information and perspectives, and opportunities for the utility (or other Plan authors) to benefit from external input.

- Best Practices in Electric Utility Integrated Resource Planning: Examples of State Regulations and Recent Utility Plans, authored by Rachel Wilson and Bruce Biewald of Synapse Energy Economic for the Regulatory Assistance Project (June

2013), provides three examples of well-organized IRPs and discusses the strengths and weaknesses of each:[1]

- Arizona Public Service.[2]
- Public Service of Colorado.[3]
- PacifiCorp.[4] PacifiCorp has enough hydro resources that it must deal with hydraulic risks similar to (but less extreme than) the risks facing Manitoba Hydro.

The Synapse report also provides references to many of the state orders establishing and structuring the IRP content and process.

- The Northwest Power and Conservation Council, a unique Federally chartered collaboration among the states in the Columbia River watershed—Idaho, Montana, Oregon, and Washington—produces a comprehensive power plan every five years. The current plan is the Sixth Plan,[5] while the Seventh Plan is under development.[6] The NPCC has been a trailblazer in integration of DSM and risk analysis into its plans. The NPCC process and plan structure are particularly interesting models for Manitoba due to:
  - The Northwest's heavy reliance on hydroelectric generation, and the Plans' consideration of hydrological risks.

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[1] www.raponline.org/document/download/id/6608

[2]The current APS IRP is available at www.aps.com/library/resource alt/2014_IntegratedResourcePlan.pdf. The earlier IRP reviewed by Synapse was also reviewed by the Arizona Commerce Commission (www.aps.com/library/resource alt/2014_IntegratedResourcePlan.pdf).

[3]The PSCO 2011 Electric Resource Plan is available at www.xcelenergy.com/About_Us/Rates_&_Regulations/Resource_Plans/PSCo_2011_Electric_Resource_Plan. The Colorado PPUC order is available at http://www.solarips.com/admin/content/uploads/Colorado-PUC-decision-on-solar-as-least-cost-resource-12-20-13.pdf..

[4] www.pacificorp.com/es/irp.html

[5] www.nwcouncil.org/energy/powerplan/6/plan/

[6] www.nwcouncil.org/energy/powerplan/7

- The ample opportunities for input from stakeholders, to inform and improve the work of the NPCC staff and consultants, combined with open communication from NPCC on the details of the draft and final analyses.
- The Plans' careful and transparent valuation of energy-efficiency capacity, energy, transmission, distribution, environmental, marginal losses.
- The sophisticated consideration of risk issues, including the benefits of short lead-time resources.

- Puget Sound Energy is particularly interesting for Manitoba because it is a dual-fuel (electricity and gas) utility, with extensive fuel-switching programs.[7] The IRP deals with gas-electric coordination, in addition to separate gas and electric planning analyses. PSE has a large amount of hydro, as well as seasonal exchange agreements with utilities to its south.
- Hawaii Electric Company.[8] Participants in the Hawaii IRP have told me that the process provided substantial meaningful opportunity for stakeholder input and communication. Hawaii's use of an independent entity to help run the process is helpful, in that it maximizes the probability that schedules, communication protocols, and presentations will not be dominated by the agenda of a particular party, generally the utility. Unfortunately, the utility does not appear to have taken advantage of the process, and its regulatory body was highly critical of the result.
- BC Hydro.[9] The IRP process includes a lengthy and intensive consultation process, with separate streams for First Nations, communities and the public, and a technical advisory committee (sophisticated intervenors). That process is highly regarded by at least some of the stakeholders and is described in the IRP. The presentation of Hydro's analyses and decisions are clearly described, as are the legal and policy constraints that Hydro considers to be binding on its process.

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[7] pse.com/aboutpse/EnergySupply/Pages/Resource-Planning.aspx.

[8] www.hawaiianelectric.com/heco/Clean-Energy/Integrated-Resource-Planning. The Commission's orders related to the IRP can be found at puc.hawaii.gov/news-release/puc-orders-action-plans-to-achieve-states-energy-goals/.

[9] https://www.bchydro.com/energy-in-bc/meeting_demand_growth/irp.html