

Network Open Season/Generator Interconnection Reform

July 20, 2011

Generation Interconnection: Finance,
Risk and Transmission Credits



Principles

- BPA's principles for Transmission Expansion for Renewable Development:
 - Minimize Cost shifts
 - Preserve BPA's sufficient access to capital
 - Renewable resources are integrated in the most cost effective way for Northwest consumers

Purpose of Discussion

- *Exploring options that might reduce the risk of rate impacts due to transmission credits associated with generator interconnection projects*

Transmission Credits

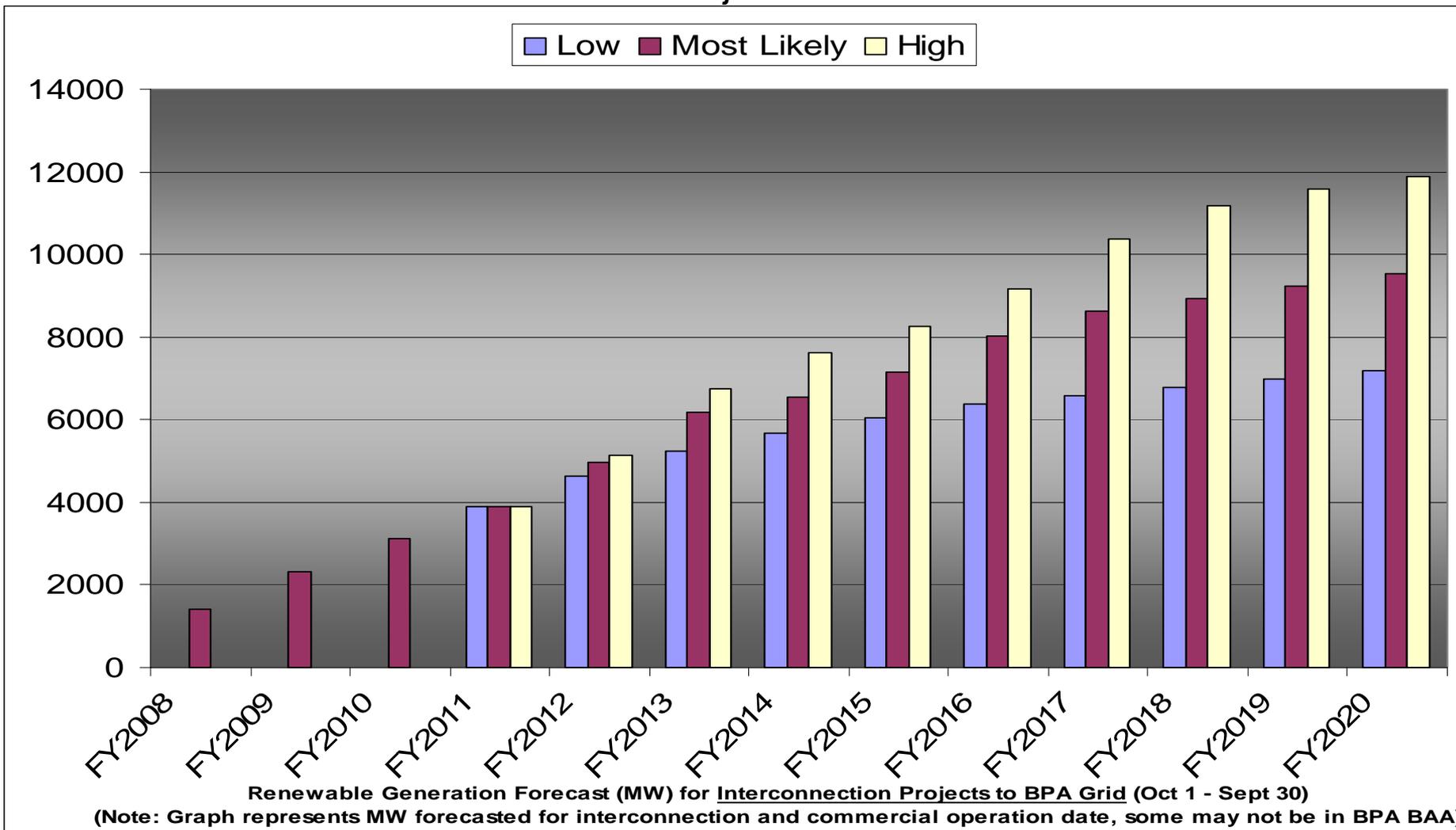
Impact on Rates

- As discussed in the Rate Case Workshop on September 15, 2010, the LGIA's impact on rates is as follows:
 - “To the extent that LGIA revenues exceed associated expenses, it creates additional costs to be recovered through rates because the credit is based on rates for service that must provide cash cost recovery.”

Wind Growth

- Wind MW are steady and will continue to grow over time
- As wind grows, so will the transmission credits
- There is a point in time when credits have an upward pressure on rates

Forecast of Renewable Projects Connected to BPA Grid



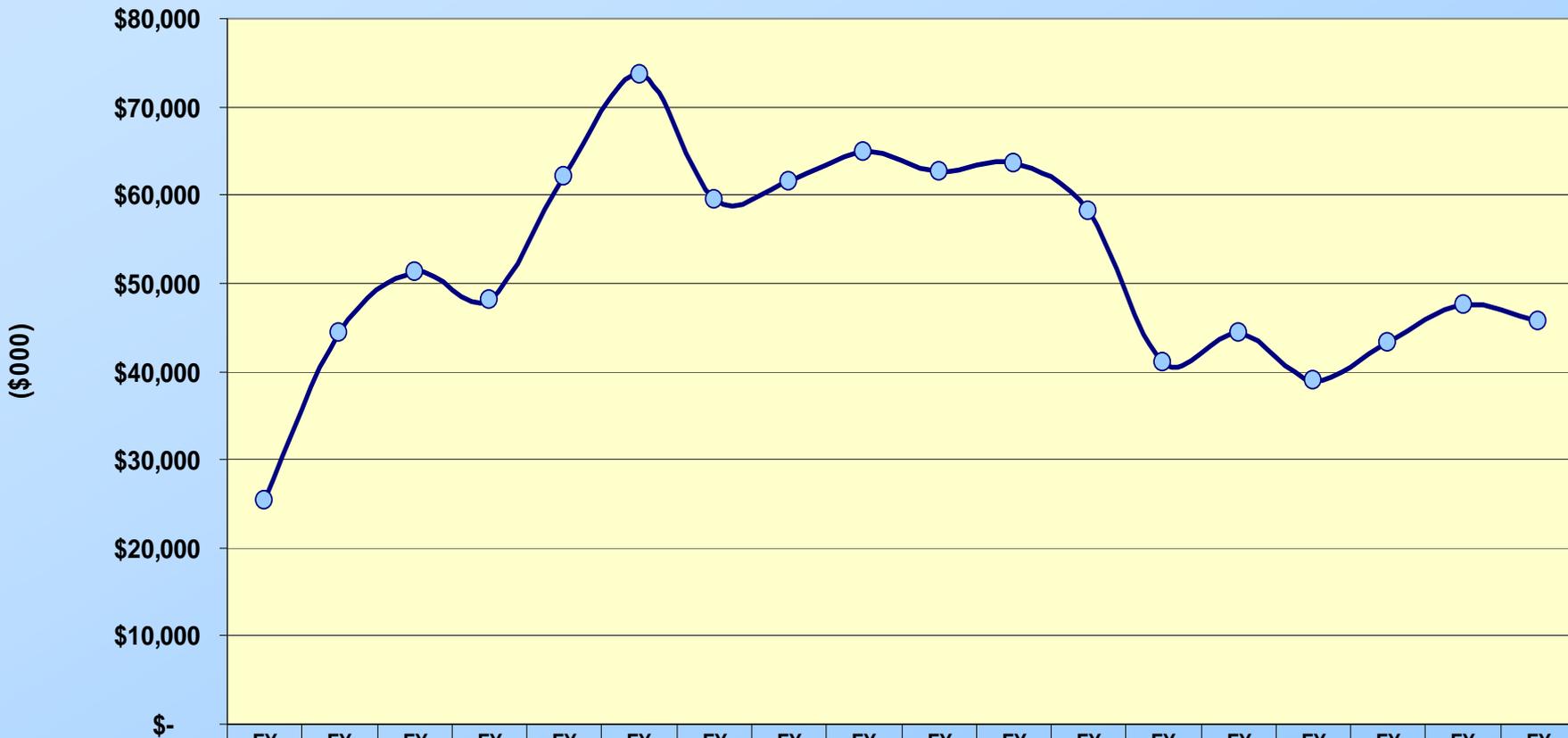
1. Projections beyond FY12 may be impacted or delayed due to a need for Transmission system expansion.
2. Projected totals based on previous experience and present growth factors including Production Tax Credits and RPS Demand.
3. Generation shown is interconnected to BPA-T; amount within BPA Balancing Authority Area is not estimated.

Projected Transmission Credit Balances

- Credit Balances are projected to increase and peak in FY 2015
- Current policy and tariff states BPA will repay remaining credit balances after 20 years

Forecast of Interconnection Credits

Total Forecasted Credit Use



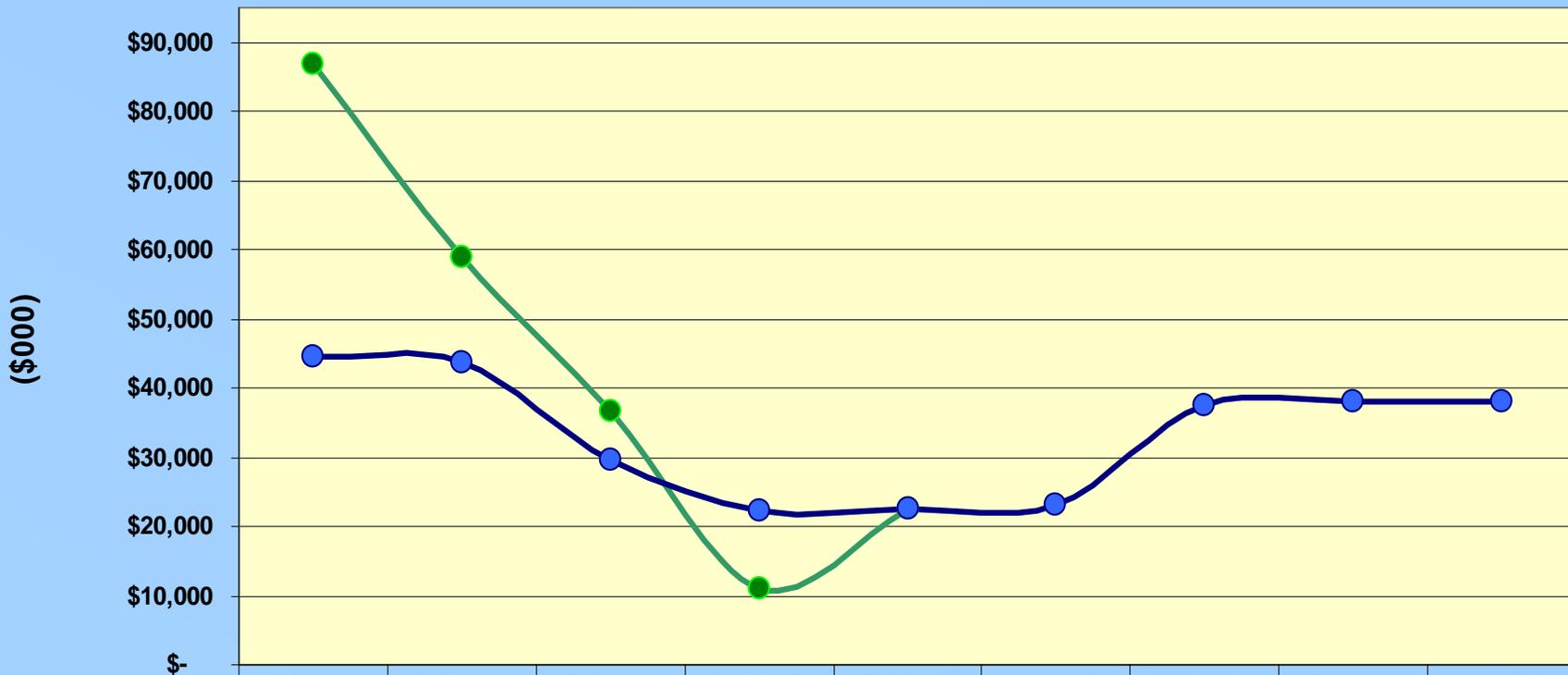
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028
Total Forecasted Credit Use	\$25,298	\$44,377	\$51,310	\$48,096	\$62,017	\$73,612	\$59,396	\$61,519	\$64,892	\$62,677	63,669	58,208	41,022	44,468	38,914	43,275	47,481	45,610

Budget and Capital Constraints

- Currently the capital required for network upgrades associated with Interconnections is part of BPA's total capital budget
- BPA's Transmission capital program consists of construction projects for reliability upgrades; commercial and interconnection projects; replacements, etc ...
- There are multiple competing needs for use of BPA's limited resources

PFIA/Interconnection Capital Budget

Generation Interconnection Capital Forecast



	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Current Forecast	\$86,745	\$59,015	\$36,639	\$10,966	\$22,650				
IPR Forecast	\$44,432	\$43,715	\$29,694	\$22,310	\$22,650	\$22,987	\$37,431	\$38,119	\$38,132

*Current Forecast ends in FY 2015

Cost Effective Integration

- There are multiple interconnection requests that would require up to six 500 kV substations with relatively few MW of associated transmission service agreements
- Only first request in queue is currently eligible for major portion of transmission credits
- Should BPA's policy be designed to require shared funding for multi-customer facilities to share allocation of transmission credits?

Possible Solutions

- Change tariff to better align costs of interconnections with causation (direct assignment vs. network)
- Make changes to tariff and credit repayment policies to reduce rate impacts
- For multiple customer interconnections, allocate funding/credits on a pro-rata basis
- Others?