



PIPE DREAMS

Sixth Annual Northwest Energy Conference



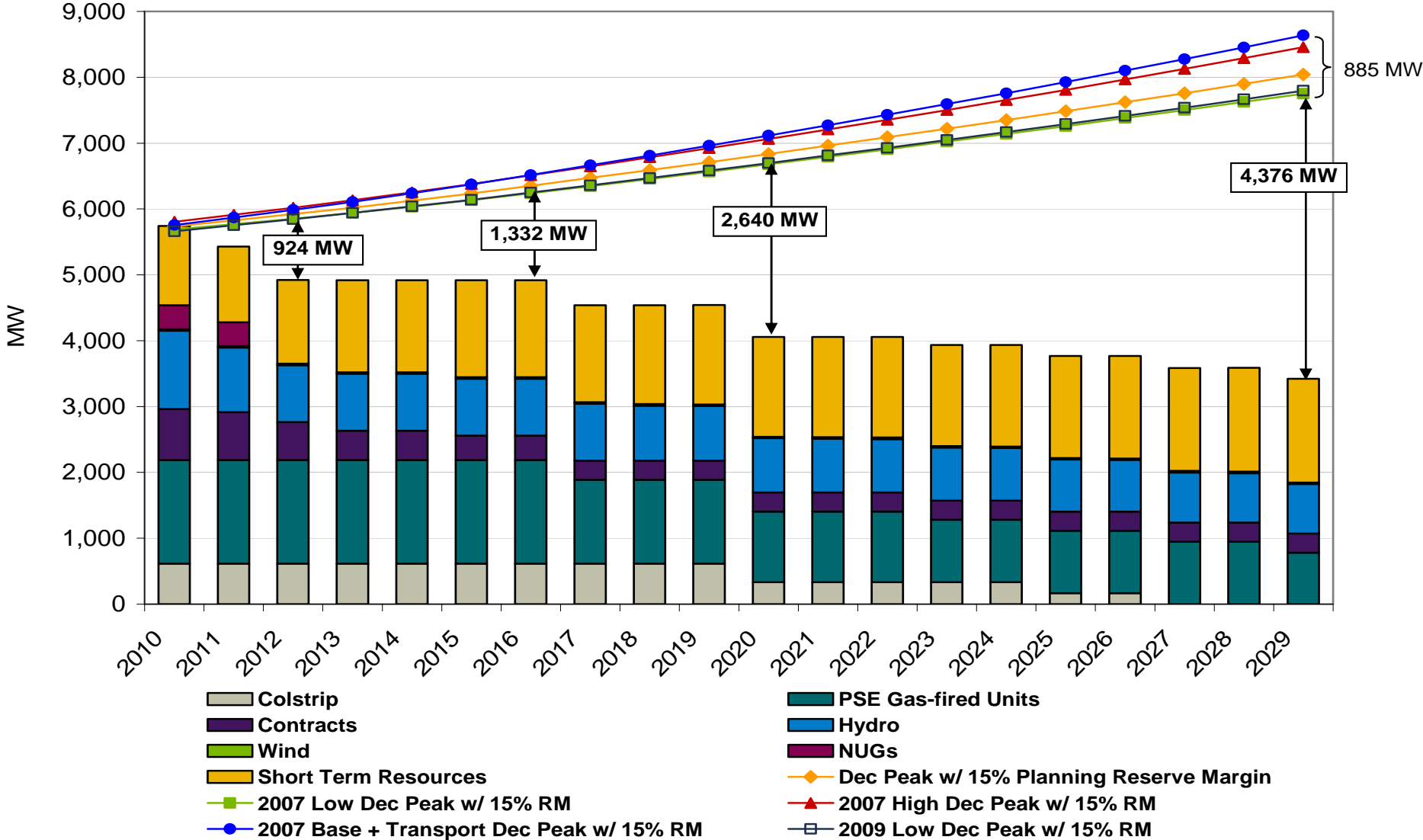
PUGET SOUND ENERGY
The Energy To Do Great Things

June 4, 2009

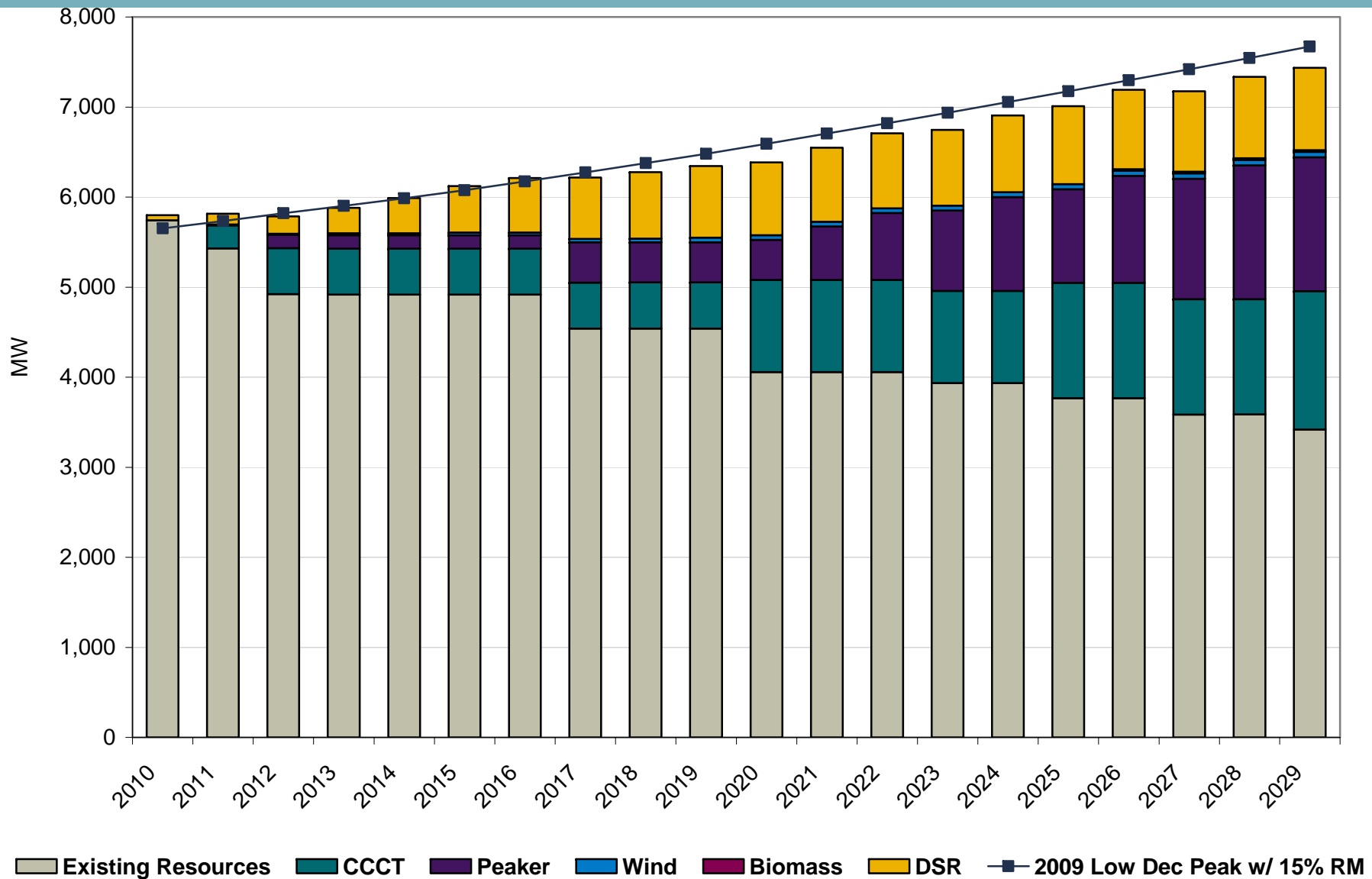
PSE Natural Gas Resource Objectives

- ◆ Ensure adequate natural gas supply resources are available to serve core market and gas-fired generation requirements;
 - ◆ Combined, (gas and power) PSE is expected to have a shortfall of approximately 160 MDth/day in 2015. The shortfall grows steadily to over 300 MDth/d by 2020.
- ◆ Add resources ahead of demand; we don't want to be caught short because of inadequate planning or foresight;
- ◆ Strive to diversify the portfolio where feasible; relying too heavily on one resource, product or supply basin could be overly risky from both a physical and financial perspective.

Electric Peak Capacity Requirements

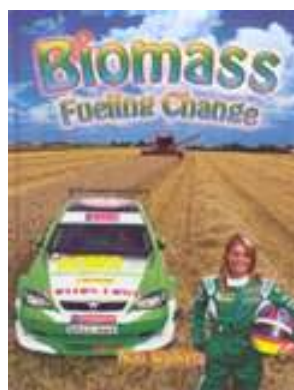


Projected Cumulative Capacity Additions (MW) Draft Electric Resource Plan, 2009 IRP



Projected Cumulative Resource Additions (MW)

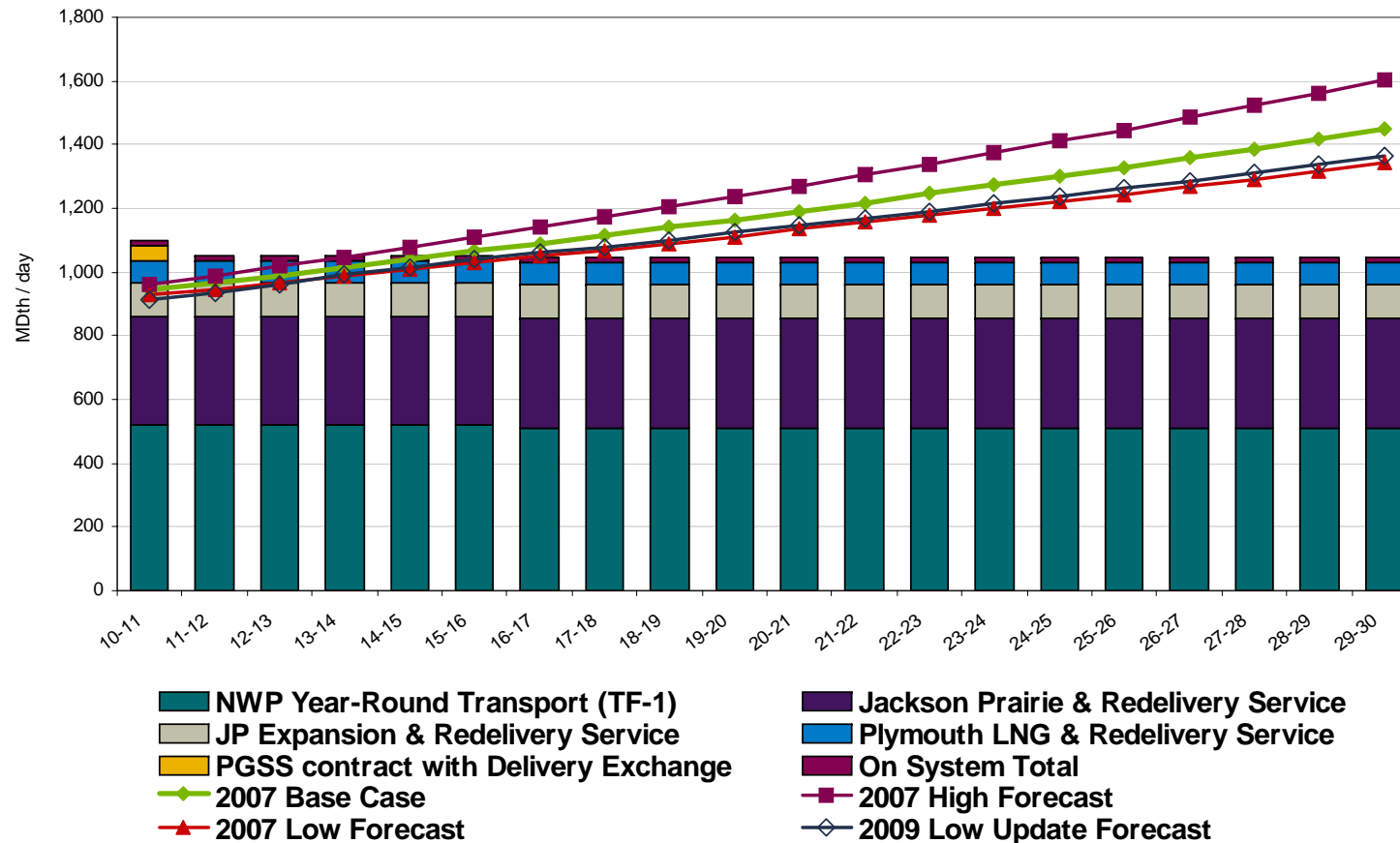
Draft Electric Resource Plan, 2009 IRP



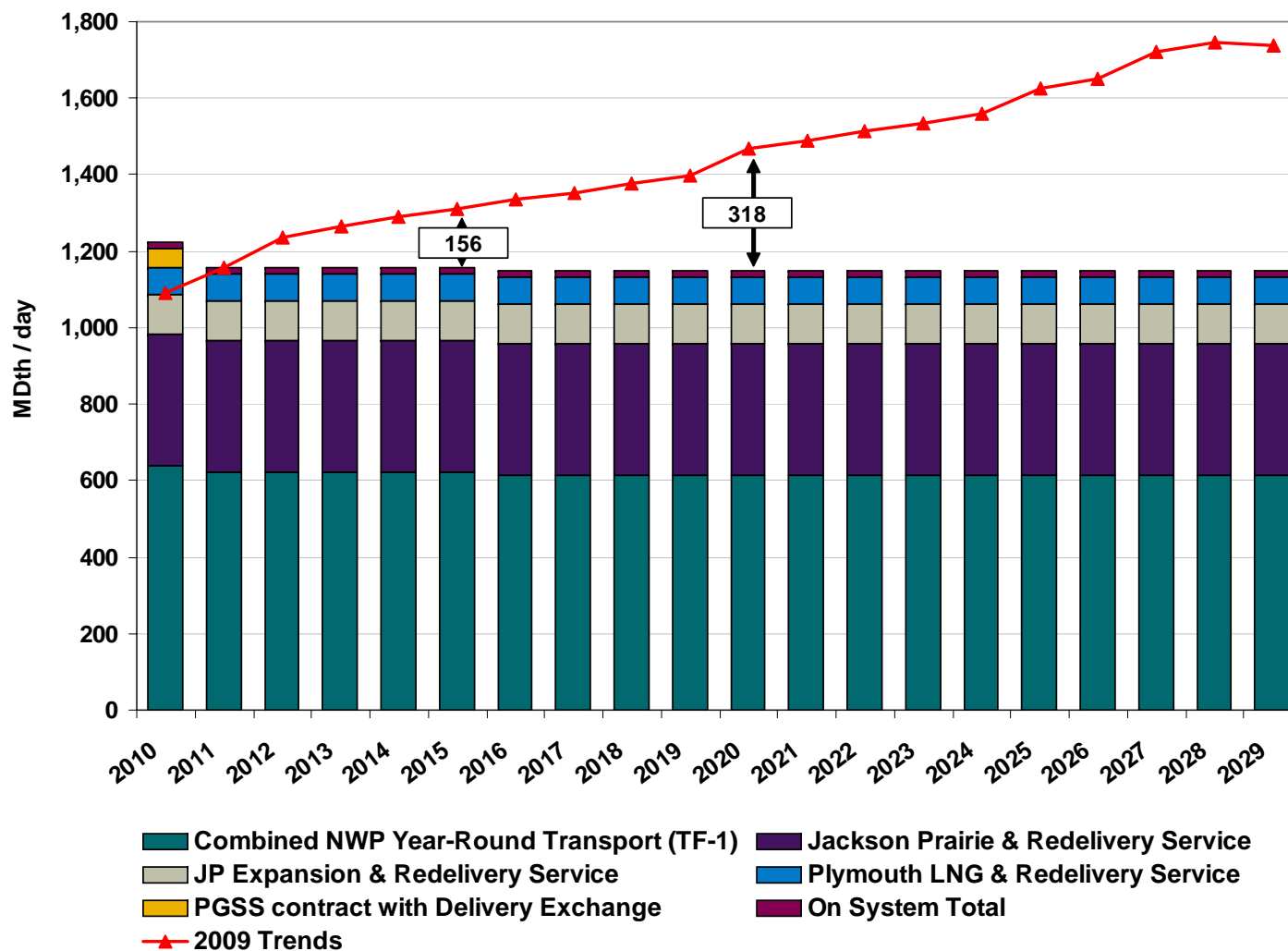
	2012	2016	2020	2029
Demand-Side Resources	192	605	808	914
Wind	200	600	1000	1200
Biomass	0	0	0	20
CCCT w/Duct Firing	550	550	1100	1650
Peakers	160	160	480	1600

Core Gas Peak Day Resource Requirements

- ◆ Base Case- No incremental resource need until 2014
- ◆ High Case- Additional resources required beginning in 2013
- ◆ Low Case – Additional resources required beginning in 2016

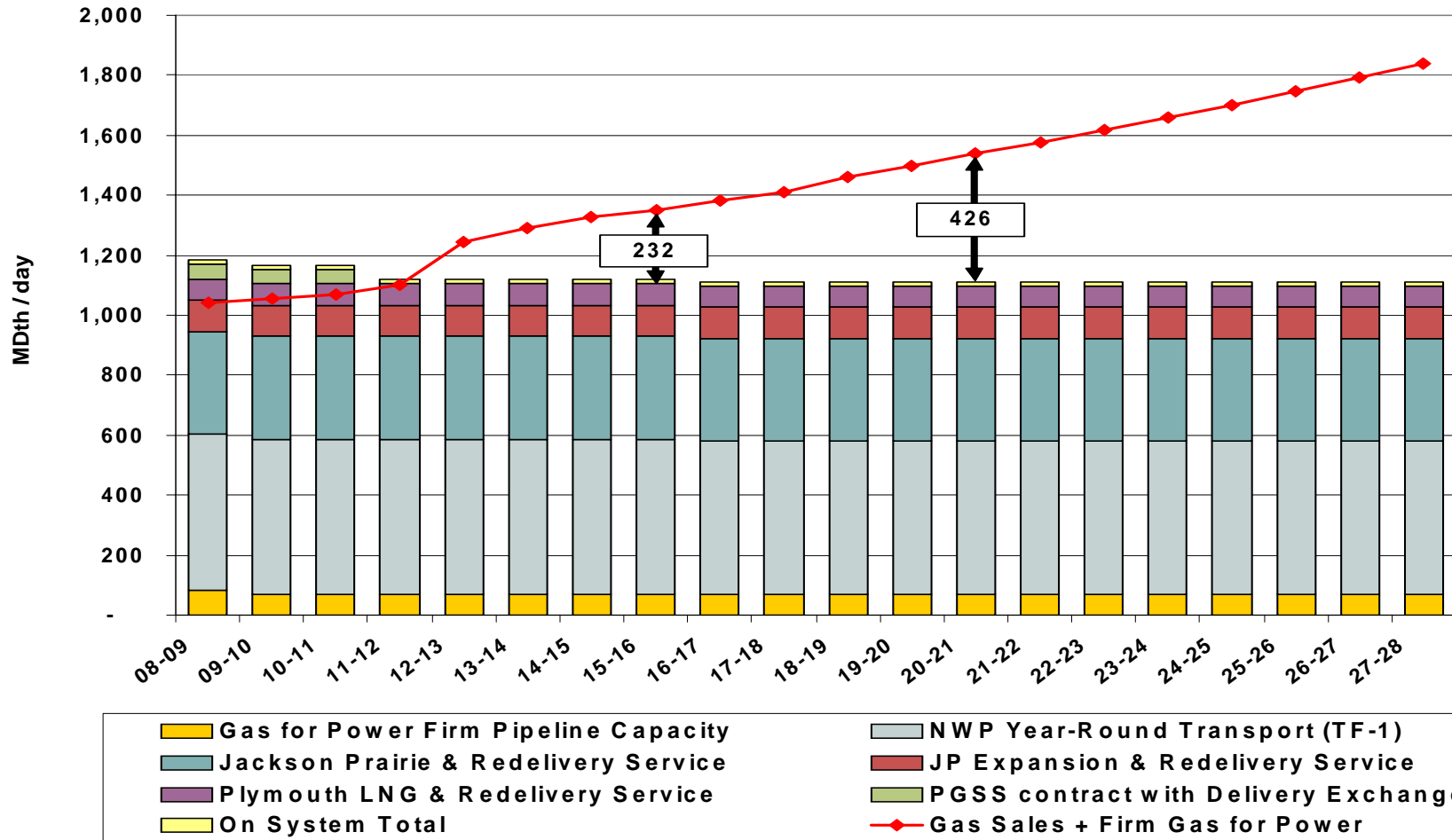


Even with Aggressive Conservation ... Demand is Up!

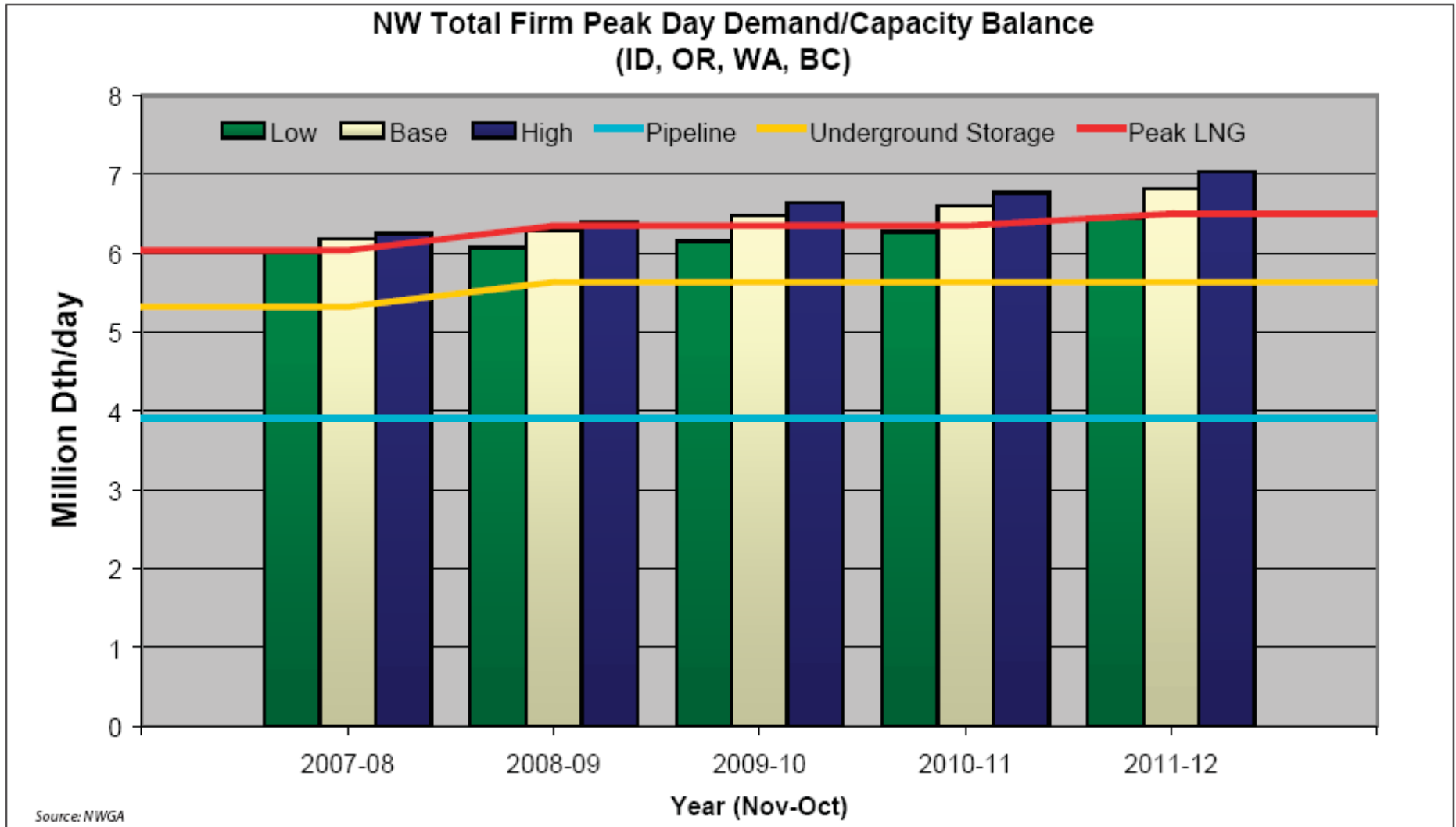


...But Down From Last Year

Combined F2007 Gas for Sales + 2007 IRP Firm Gas for Power
Peak Day Forecasts
(Net of Conservation)

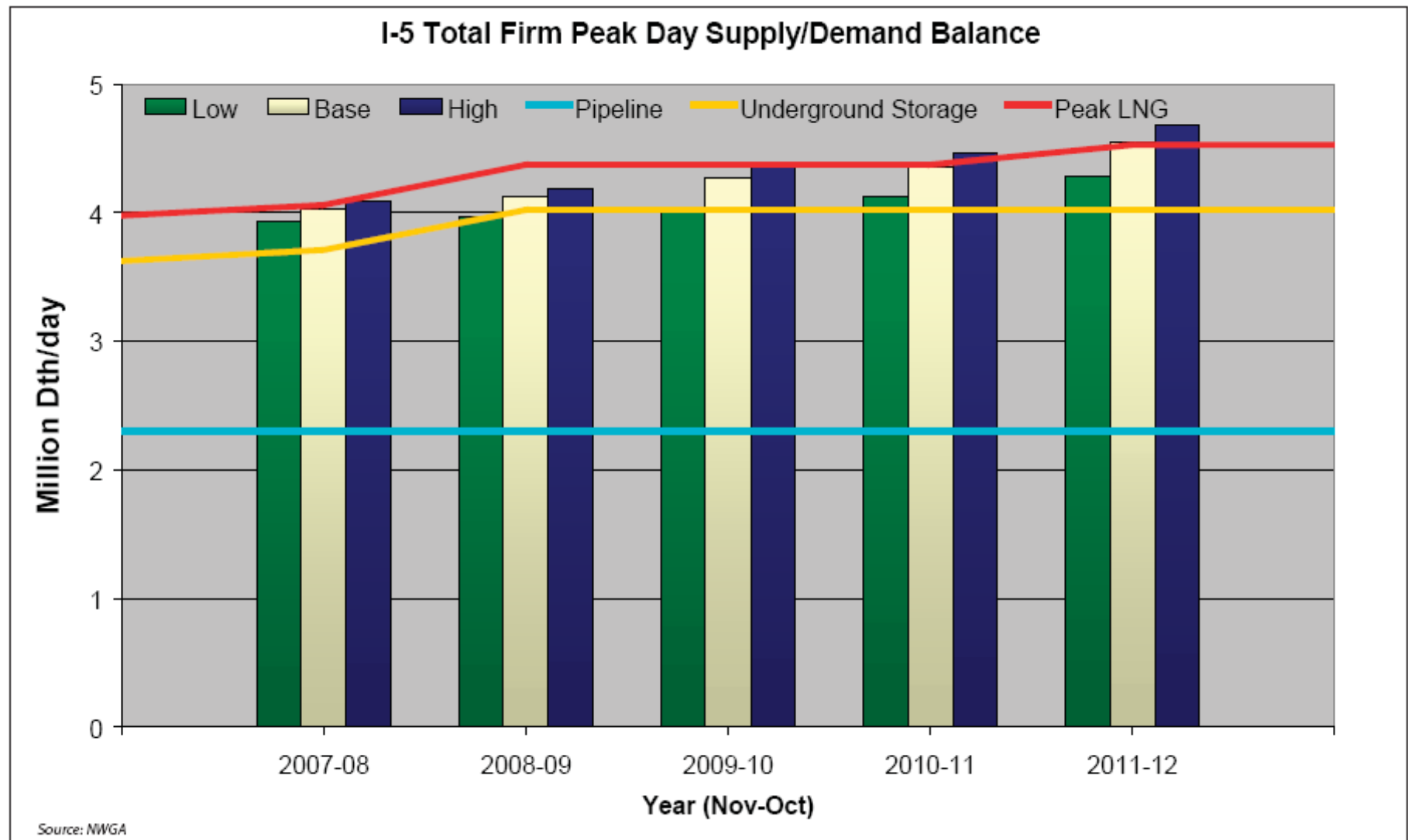


Regional Infrastructure Needs Enhancement



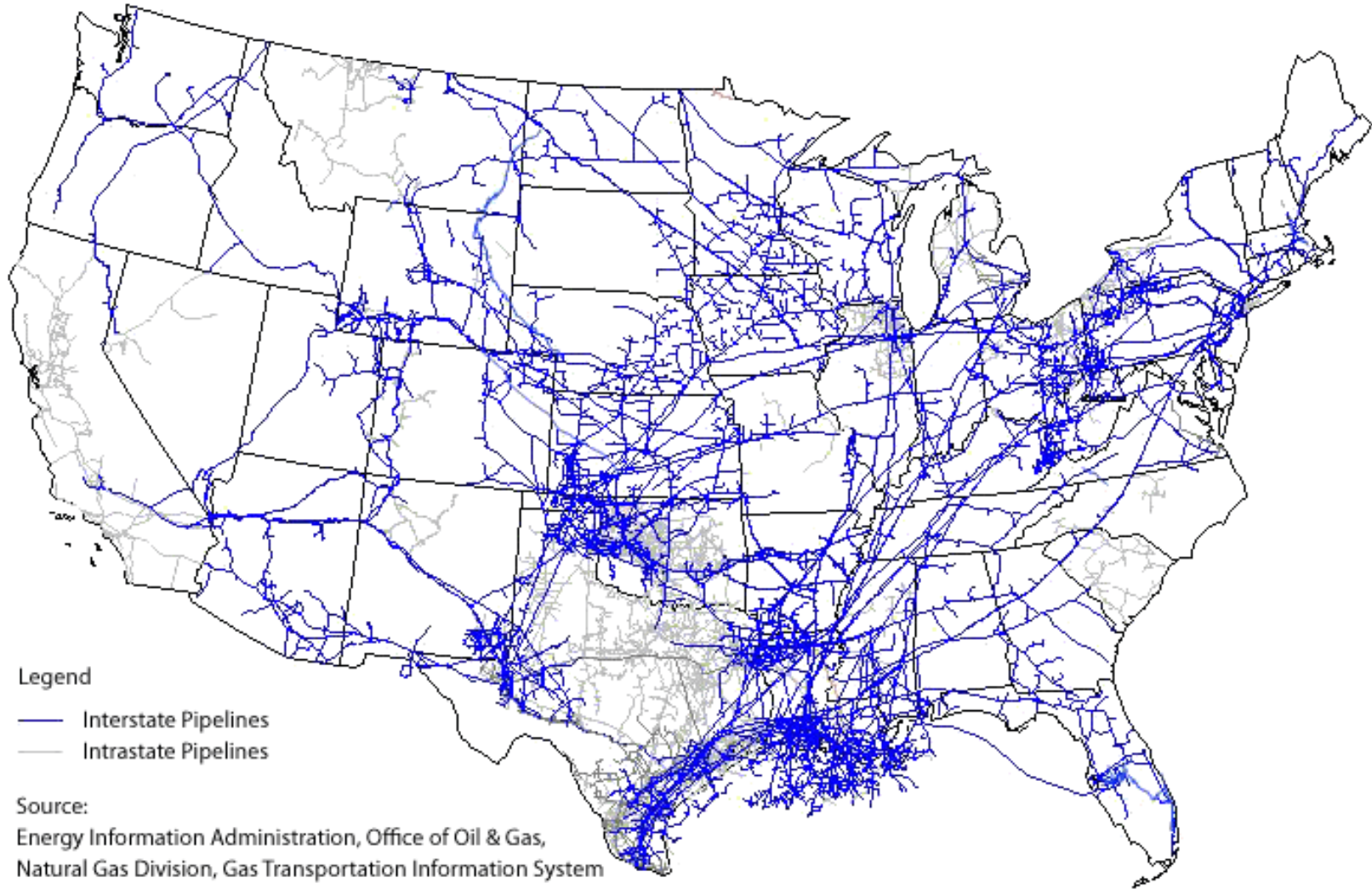
Courtesy of NWGA

I-5 Corridor Relies on Storage for 50% of Peak

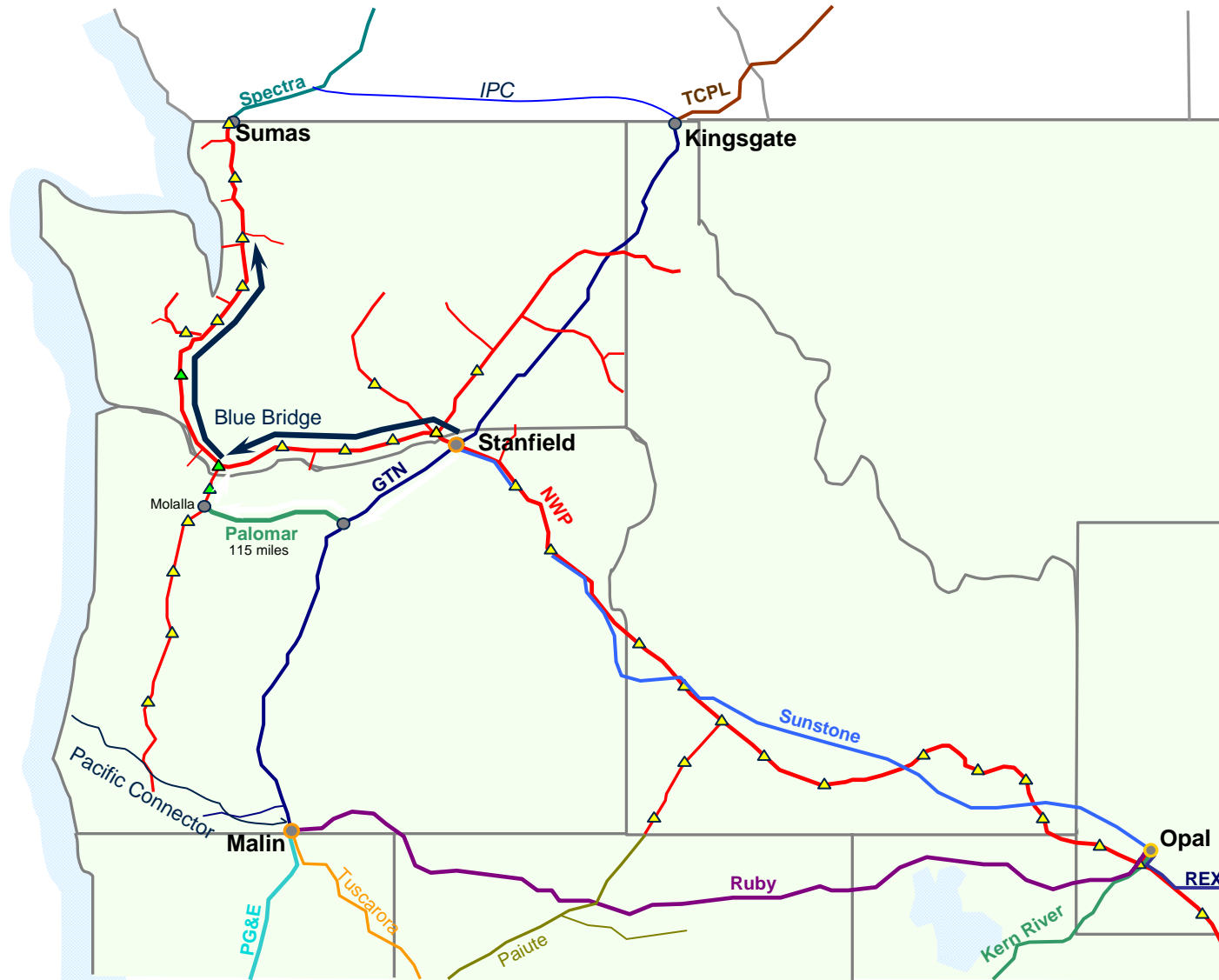


Courtesy of NWGA

Pipe Dreams...US West Pipe Envy?



Pipe Dreams...Our Aspirations



Courtesy of Williams

The Resource Acquisition Conundrum...

- ◆ Long-term projected production growth in the Rockies is a game changer; but incremental access to Rocky production is expensive for the PNW.
- ◆ Projected British Columbia shale reserves can also be a game changer, but:
 - ◆ Will prices recover sufficiently to prompt full-scale development?
 - ◆ Producers want to head east to NIT!
 - ◆ Will oil sands development devour the production growth?

The Resource Acquisition Conundrum...

- ◆ We need/want pipeline infrastructure expansion in the region, (PSE needs expansion specifically on NWP), but two of the region's pipelines are significantly undersubscribed—what happens to them as they face such expansion?
- ◆ Only a few PNW players are supporting expansion (and PSE currently accounts for 85% of a cross-Cascades expansion):
 - ◆ Supply diversity benefits likely accrue across the market, if the expansions occur, but only a handful pay for the expansions.

The Resource Acquisition Conundrum...

- ◆ Can the PNW support two westbound expansions from the Rockies?
 - ◆ Ruby appears to be well on its way, but does it have sufficient subscription levels to make it economically viable?
 - ◆ Where will Sunstone find needed subscribers?
- ◆ We have at least three cross-Cascades expansion possibilities, four if you include Pacific Connector in that category:
 - ◆ If parties don't come together there is a distinct possibility that no project gets built ... is that all bad? Is the region collectively OK relying on Canadian supplies for incremental growth

The Resource Acquisition Conundrum...

- ◆ What happens to Sumas – Rockies Basis if the Rockies-west and cross-Cascades expansion go through?
 - ◆ Probably flattens
 - ◆ Lowers Sumas? Or raises Rockies? Or both?
- ◆ What happens if only a Rockies-west expansion is built?
 - ◆ Flattens Rockies-Malin?
 - ◆ Widens Sumas-Malin?
- ◆ Or only cross-Cascades?
 - ◆ Anything?

The Resource Acquisition Conundrum...

And finally, what happens if no Rockies-west or cross-Cascade expansions go forward?

- ◆ Will the region, especially the I-5 corridor, be totally dependent on the successful development of BC shale, from both a physical supply and price risk perspective?