



6th Plan Electricity Demand Forecast- Draft

For Generating Resources Advisory Committee

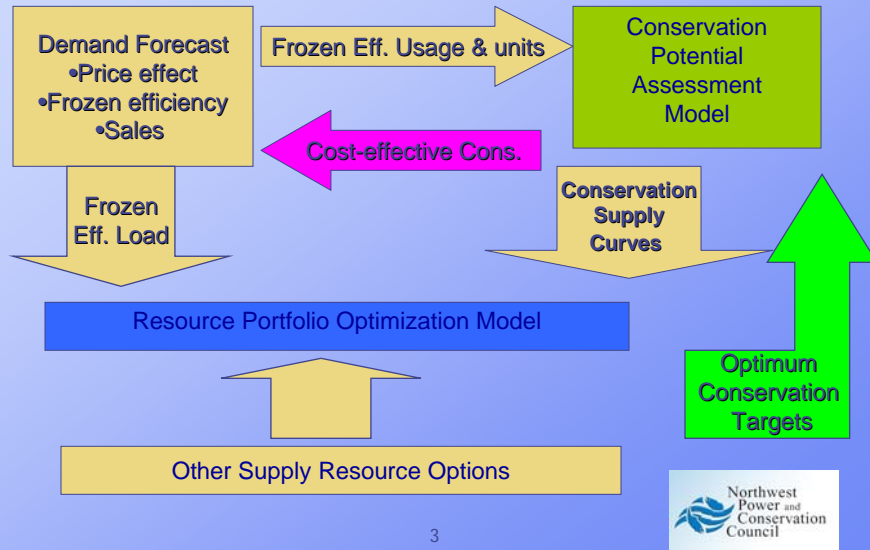
December 18th 2008

Agenda for this presentation

- Review of Forecasting Assumptions
- Review of Base Case load forecast
- Review of Alternative load forecasts



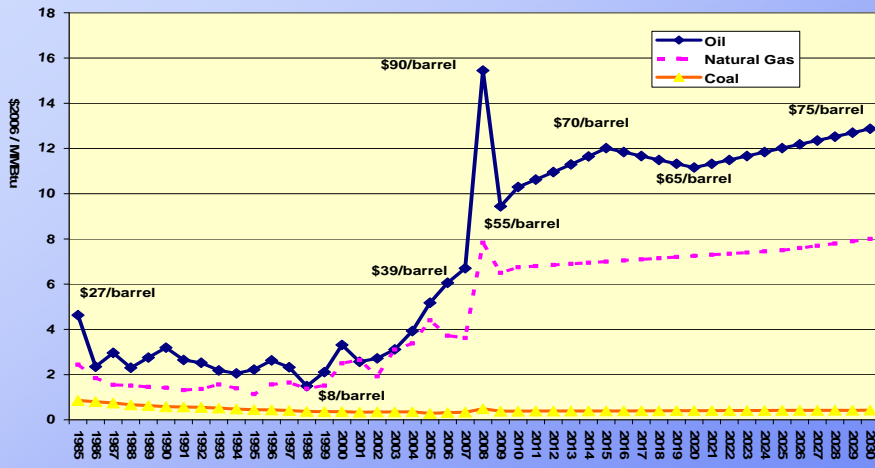
Council's Planning Process



Comparison of Key Regional Economic Drivers Indicates Slow Growth Path

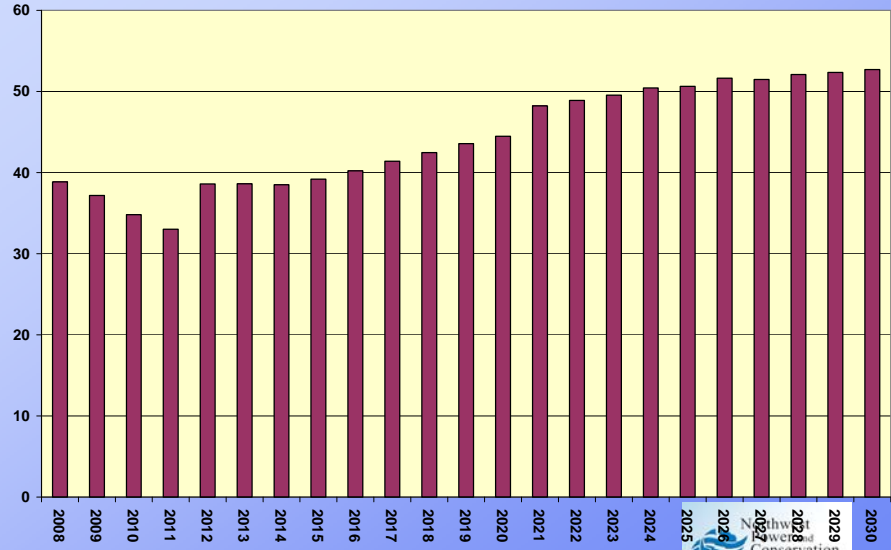
Drivers	1985-2007	2010-2030
Population	1.6%	1.3%
Residential (000's units)	1.8%	1.7%
Commercial Floor space (millions of sqf)	2.3%	1.5%
Manufacturing Output (billions \$2000)	4.1%	3.0%
Agriculture Output (billions of \$2000)	4.4%	3.9%
Transportation (\$billions of \$2000 income/output)	3.6%	3.3%

Projected Fuel Prices



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Wholesale Prices at MidC (2006\$)
(6th Plan 03-13-2008 RPS HCAPTL HD)



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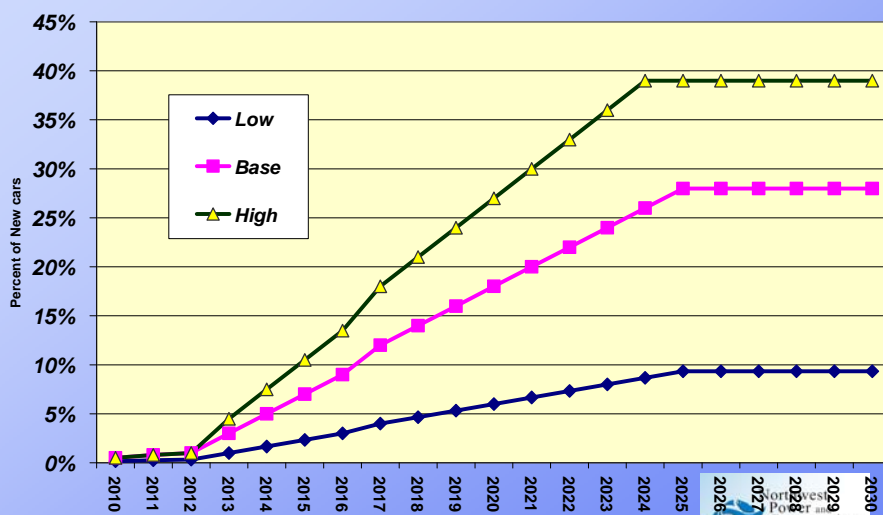
Simple “What If” model

- Forecast of passenger and light trucks –Global Insight
- Market share fraction ~ slow to start: .05% 2010-2013, ~26% by 2025
- Miles traveled per day ~33 held constant
- Energy requirement ~ 0.26-0.46 KWh/mile (0.3 midsize)
- Energy efficiency improvement -5% per year
- Battery size 10 KWh
- Available battery type Lithium-Ion
- T&D and conversion efficiency losses ~20%
- Recharge at 110 v 15 amp in 8 hours
- Recharge at 220 v 30 amp in under 2 hours
- Assumed 95% recharge off peak, 5% during peak hours
- Current average MPG for gasoline vehicles 20.2
- CO2 emissions for gasoline ~ 1 lb/mile

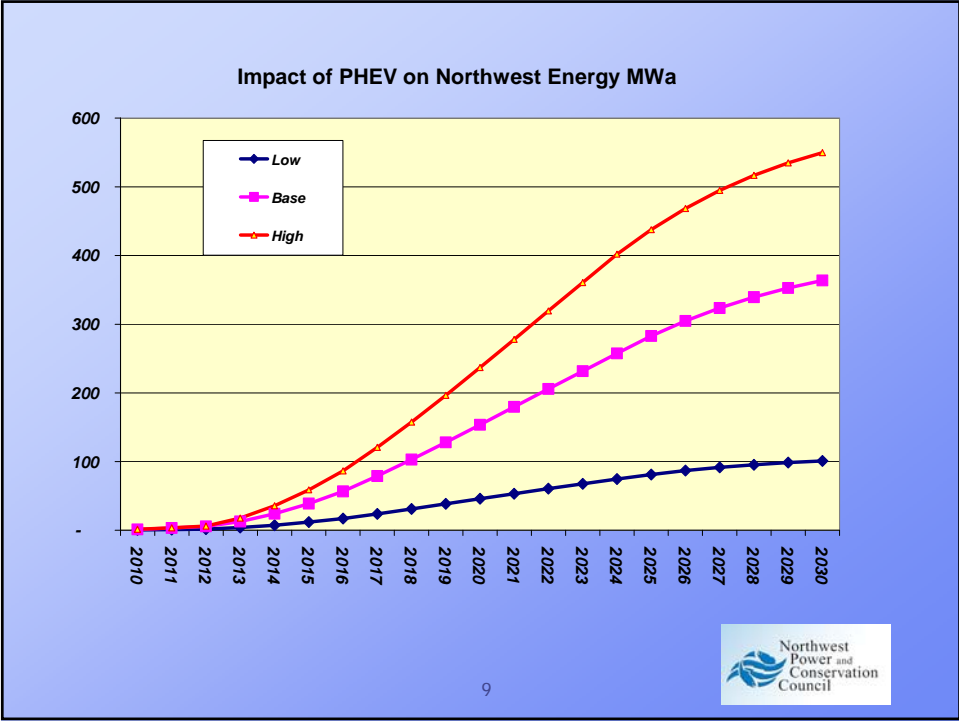


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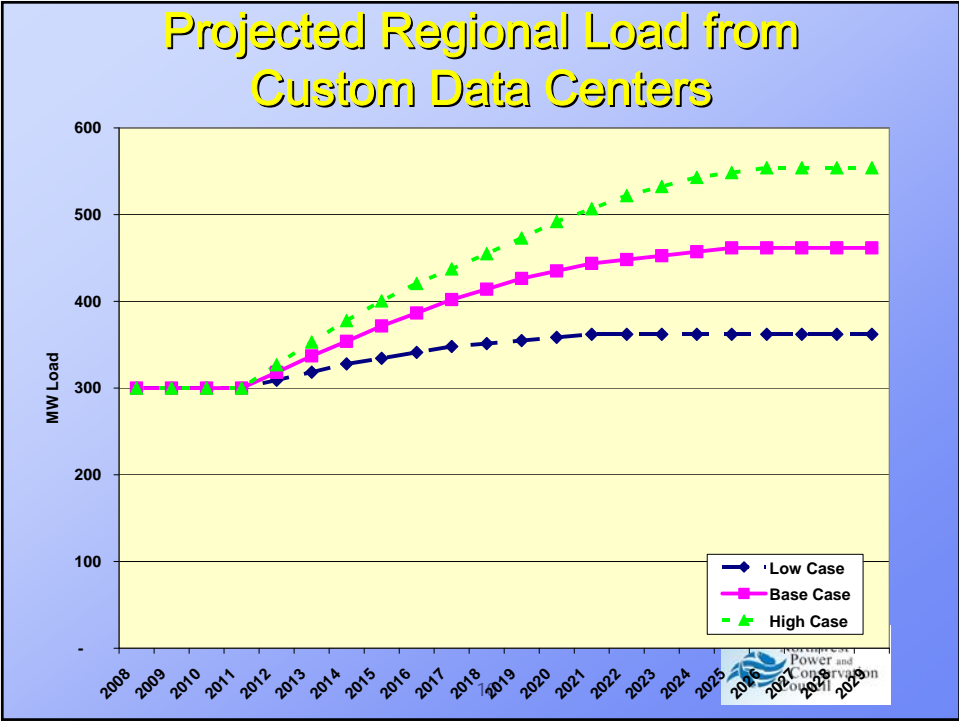
Plug-in Hybrid Electric Vehicles Market Share of New Vehicles



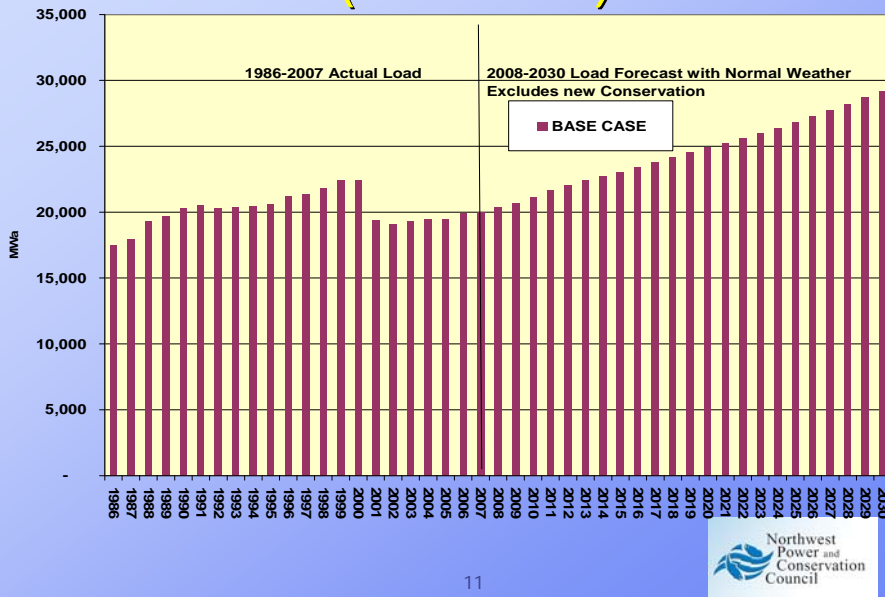
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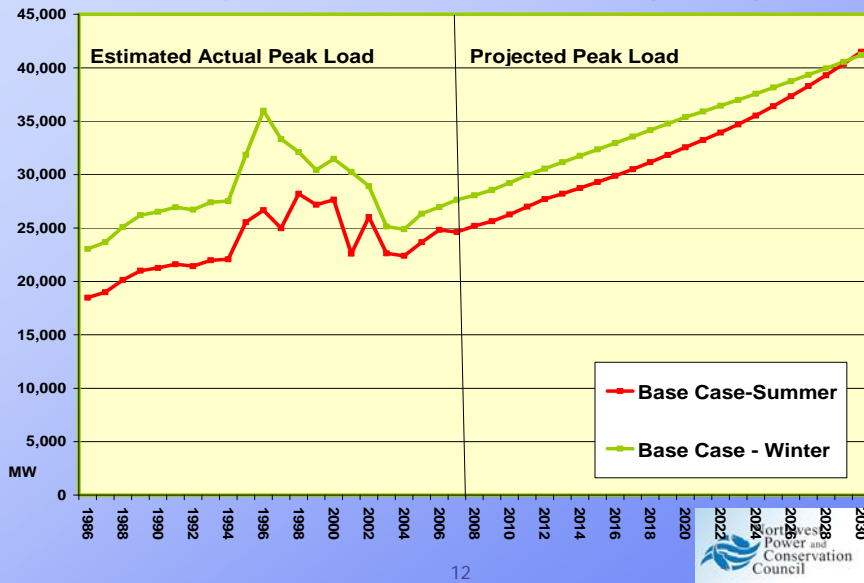


Regional Load Forecast MWa (Price effect)



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Regional Peak Load (MW)



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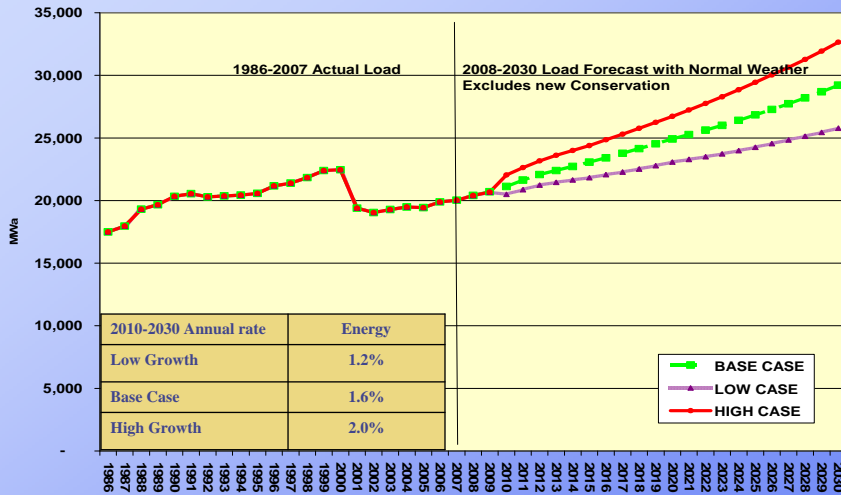
Historic, Base Case and Alternative Scenarios Growth Rates can be summarized as

	1985-2007	2010-2030	2010-2030	2010-2030
Sectoral Driver	Actual	Low Case	Base Case	High Case
Population	1.60%	0.60%	1.30%	2.20%
Residential	1.90%	0.60%	1.70%	2.20%
Commercial Floor space	2.30%	0.90%	1.50%	1.90%
Manufacturing Output \$	4.10%	2.30%	3.00%	3.90%
Agriculture Output \$	4.40%	3.00%	3.90%	5.00%
Light Vehicle Sales		0.50%	1.40%	2.20%
Plug-in electric Vehicle penetration rate by 2030	NA	10%	30%	40%
Inflation rate	2.20%	1.70%	1.90%	3.50%
Fuel Prices		Council's Low Forecast	Council Base Forecast	Council High Forecast

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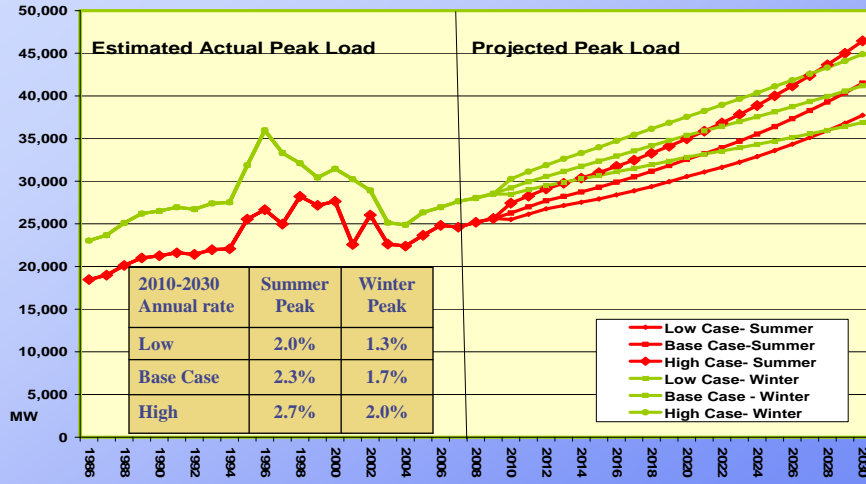
Load Forecast (Price Effect Forecast)



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Regional Peak Load Projections



Summary of Projections for 2010-2030

Scenario	Energy	Summer Peak	Winter Peak
Low Growth	1.2%	2.0%	1.3%
Base Case	1.6%	2.3%	1.7%
High Growth	2.0%	2.7%	2.0%

