The Role of Energy Efficiency in Utility Resource Plans in Rocky Mountain Region

PacifiCorp

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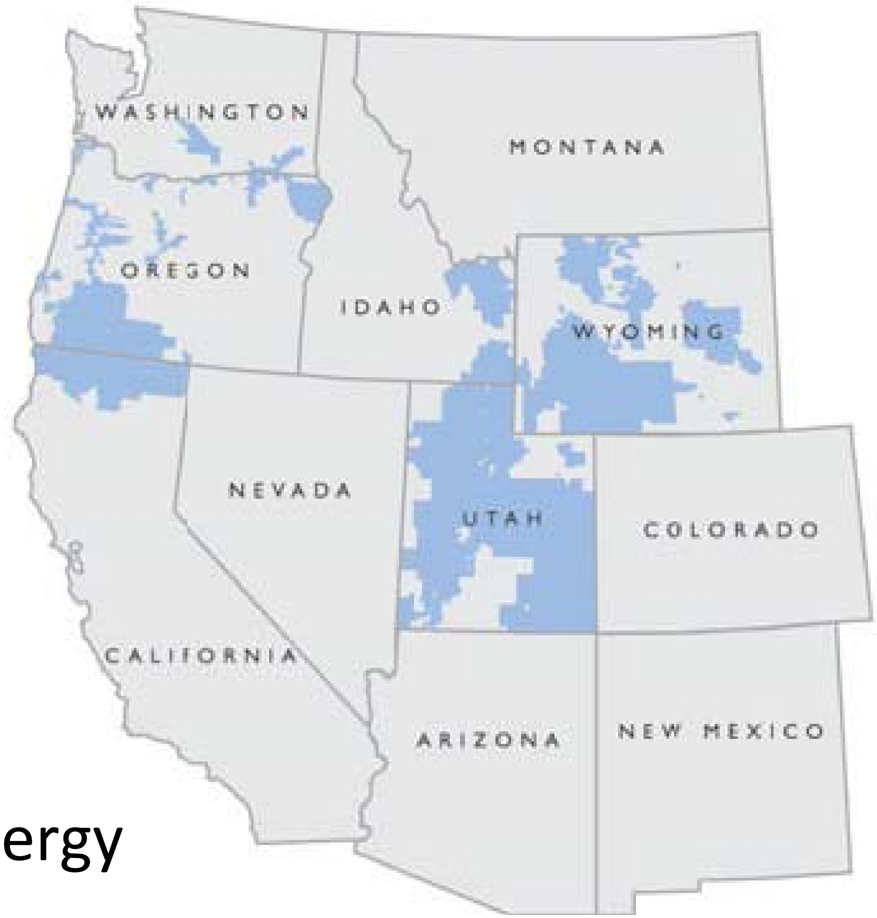
wattsmart

PACIFICORP

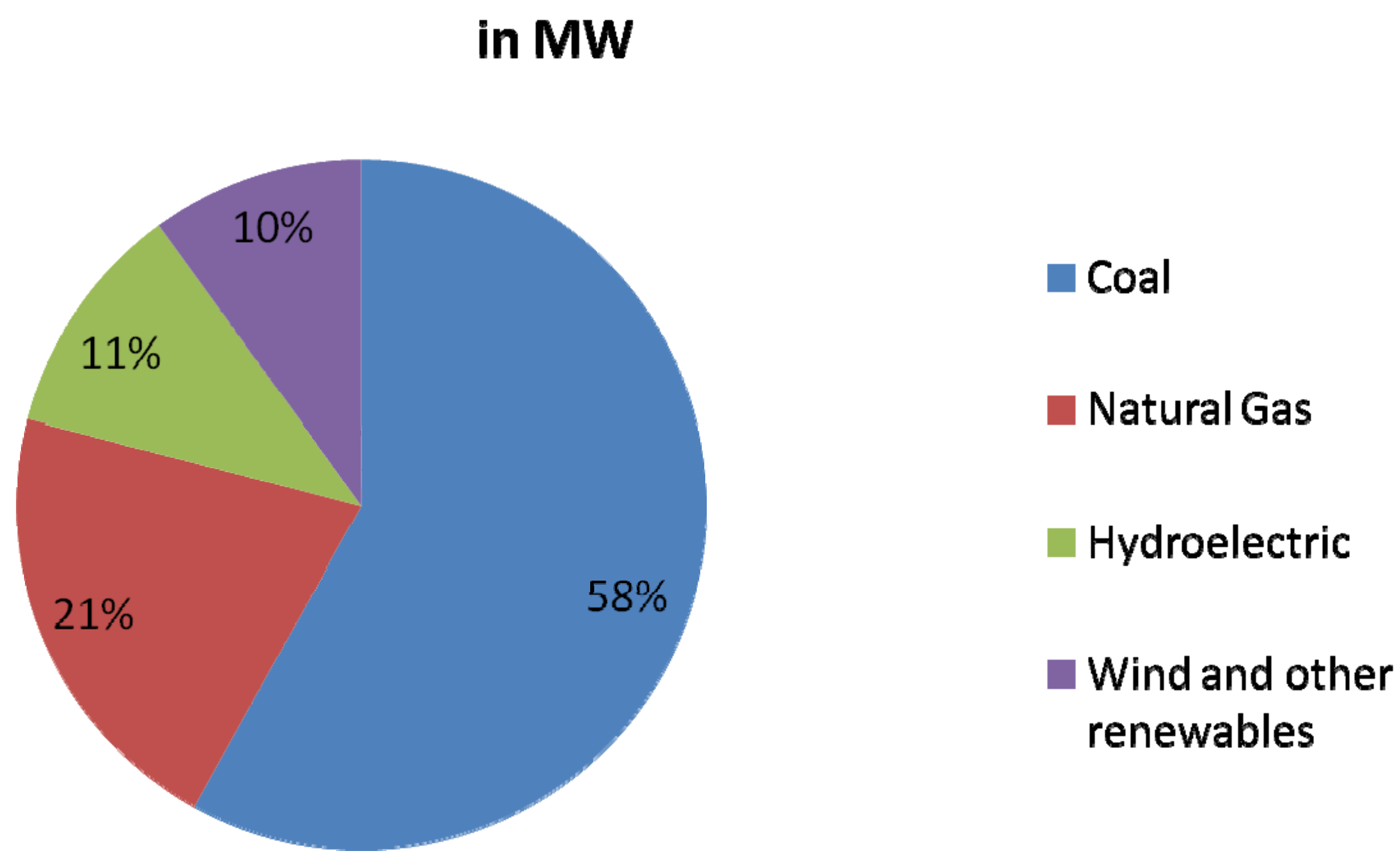
Let's turn the answers on.

PacifiCorp

- 1.7 million customers
- 6 states
- 6,500 employees
- 3 business units
  - PacifiCorp Energy
  - Pacific Power
  - Rocky Mountain Power
- 10,483 MW - net generating capacity
- Owned by MidAmerican Energy Holdings Company

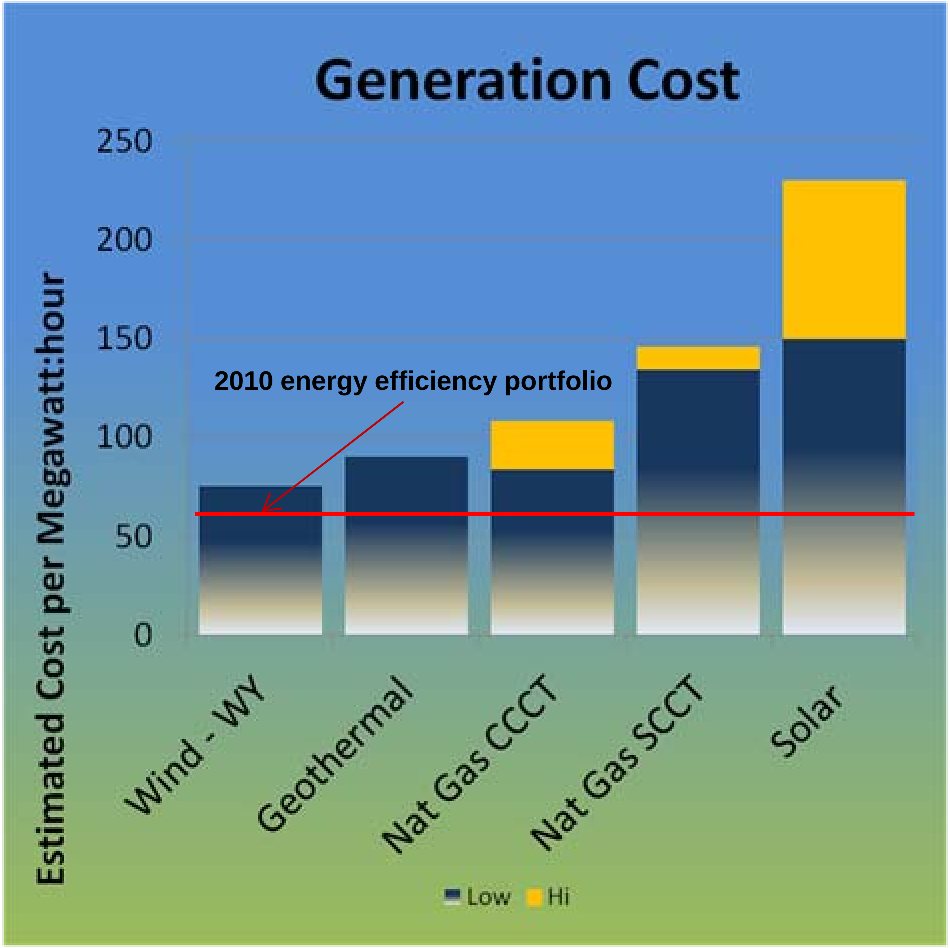


Energy Sources Owned

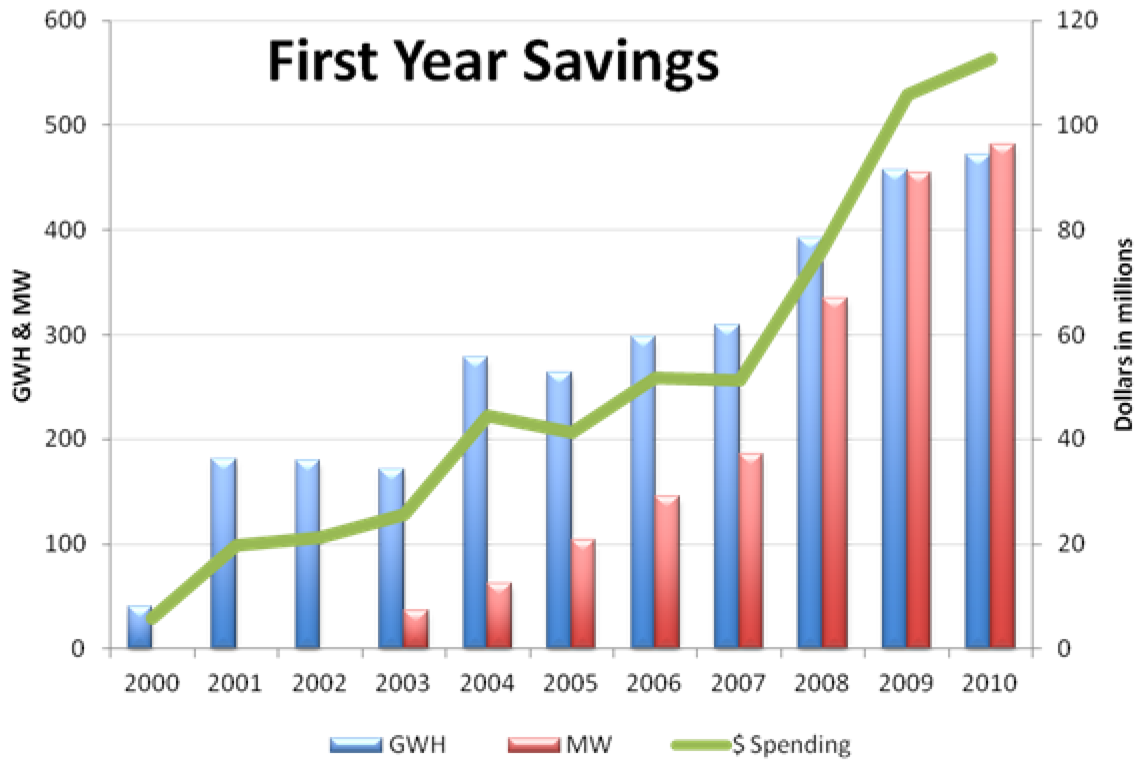


Saving Energy = Saving Money

- Rocky Mountain Power and Pacific Power customers invested $112 million in energy efficiency, conservation and peak reduction programs in 2010
- Cost effective compared to most generating alternatives



Saving Energy



Cost per unit of savings increased

2010 energy savings = **Generation from ~ 180 typical wind turbines**

Long History of DSM

1970s – Legislative Mandates

- Residential audits and weatherization

1980s – Real Beginnings

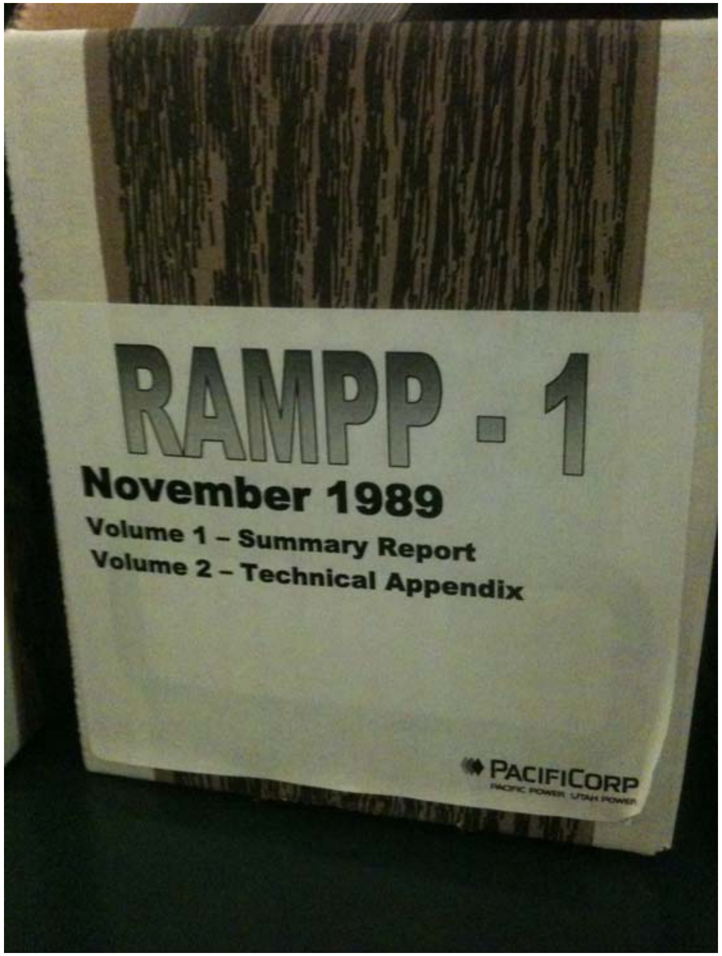
- Hood River project
- Good Cents Home Construction Program
- Low-Income Weatherization is born
- Energy Edge and Pacific Environments emerged for businesses

1990s – Regional Activity Reached New Heights

- Energy FinAnswer
- Manufactured Homes Program
- Low Income & Multi-family direct install program
- Mass market low-flow showerhead programs
- Market transformation kicked off – Super Efficient Refrigerator Program and Northwest Energy Efficiency Alliance.
- **1992-2010 Cumulative Savings (Class 2)**
  - 4.4 million MWh and ~800MW of capacity reductions

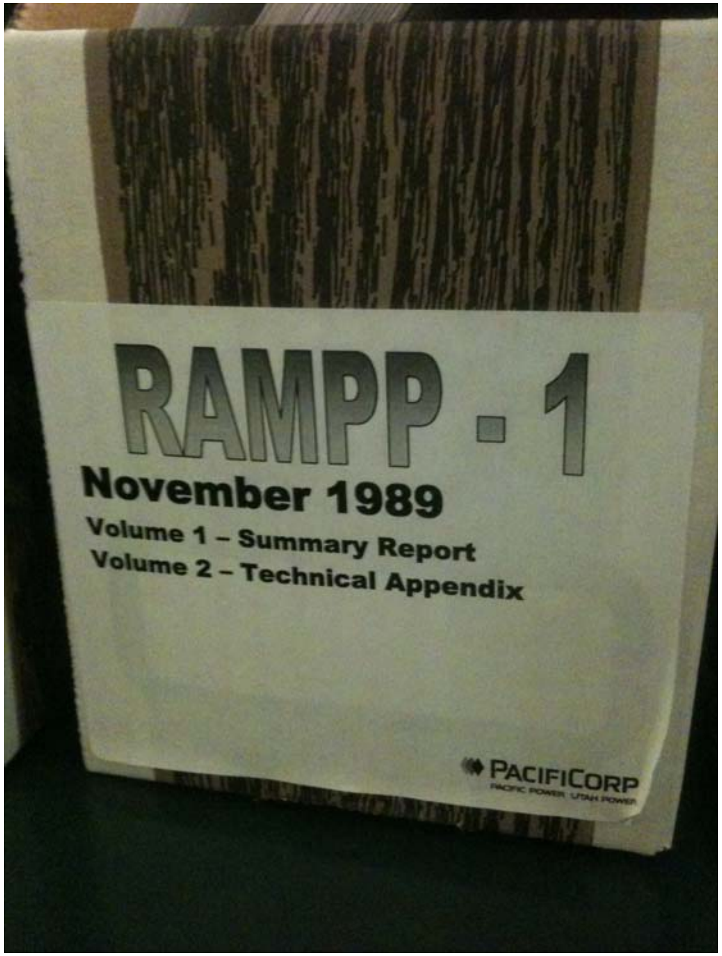
DSM as a Resource…the Early Years

- November 1989 – 1st report
- RAMPP = Resource and Market Planning Program
- First report to document planning process to meet least cost planning requirements in WA, OR, CA and ID.



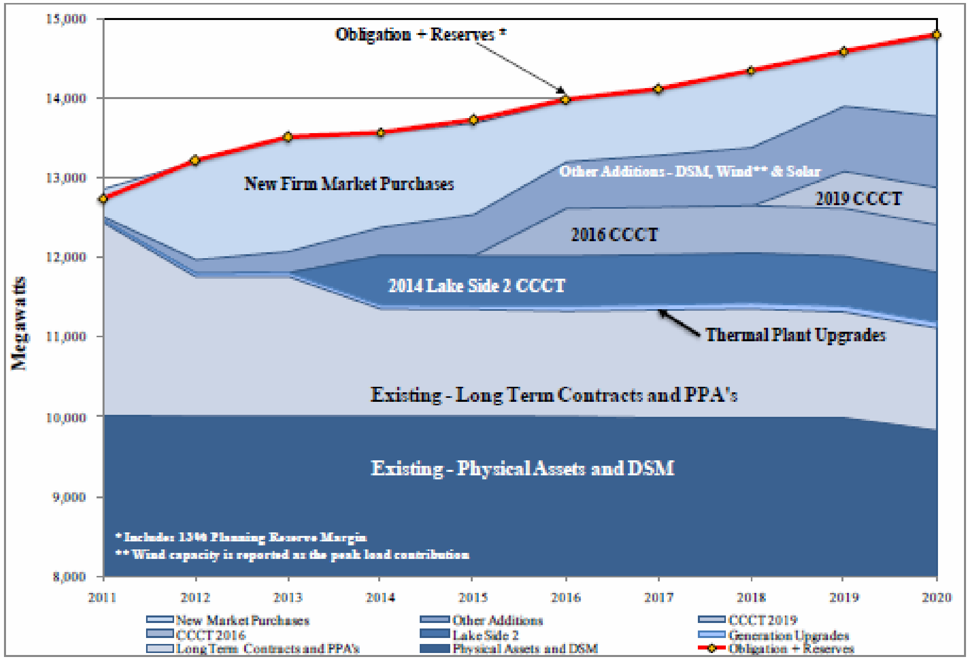
DSM as a Resource…a Nega-What?

- DSM was included
- DSM forecast – 1990 – 2010
  - Low scenario (360 MWa)
  - High scenario (600 MWa)



DSM as a Resource

- 22 yrs later, 11th IRP published in 2011
- 2011 IRP is massive
  - Volume 1, 304 pages
  - Volume 2, 274 pages
  - Addendum, 51 pages



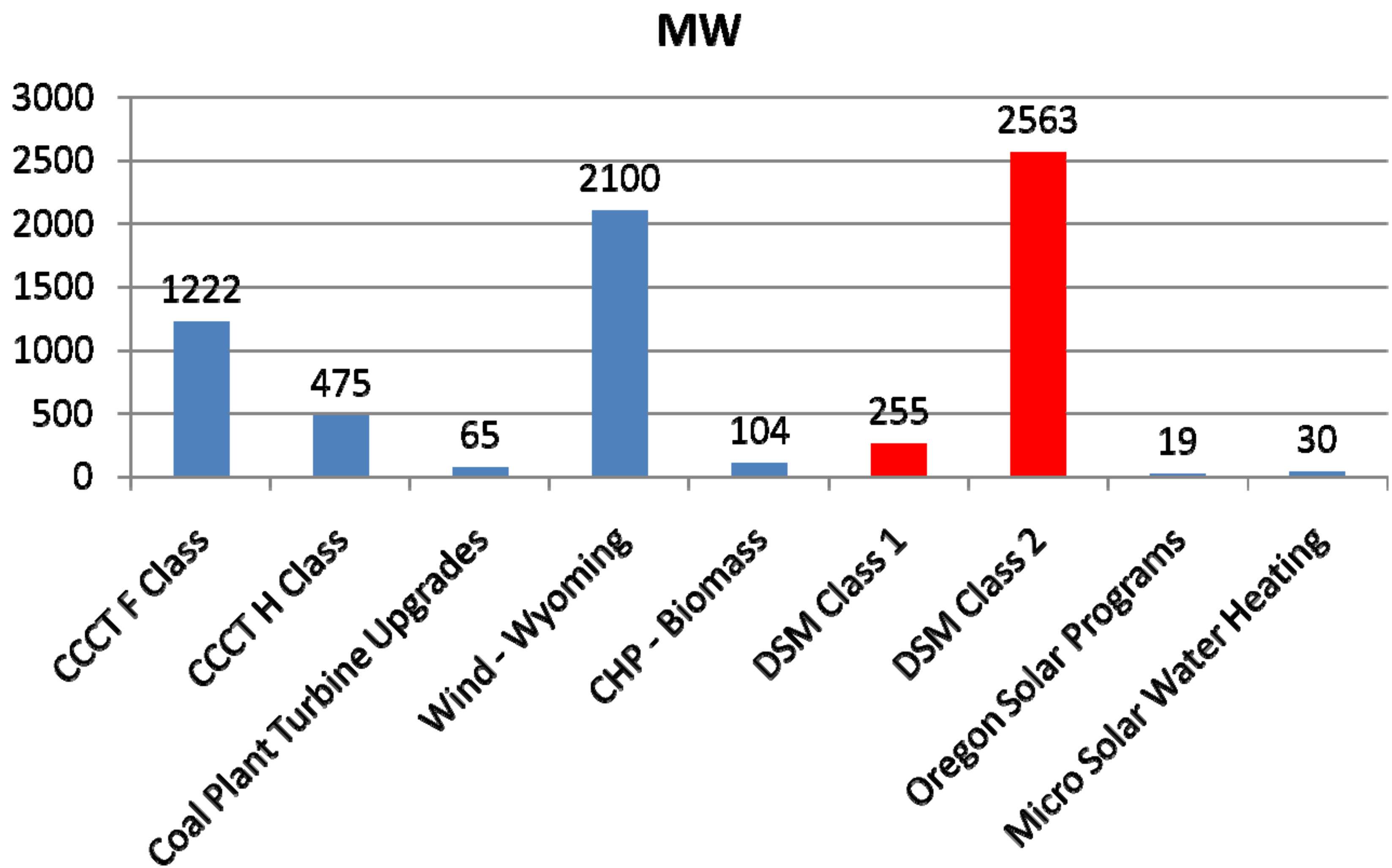
2011 IRP (2011-2020)

- Comprehensive decision support tool and road map (11th edition)
- Public involvement – state utility commission staff, state agencies, customer and industry advocacy groups, project developers, others
- Requires “IRP acknowledgement” – in 5 out of 6 jurisdictions (WA, OR, WY, ID, UT)

2011 IRP – Changes from 2008

- Construction costs - down
- Load forecasts - lower in 2011
- Gas prices – down
- CO_2 prices – down
- Production Tax Credit
  - 2008 IRP – assumed forever
  - 2011 IRP – assumes it goes away in 2015
- Energy Gateway - $6 billion transmission project underway
- Major emphasis on DSM

2011 IRP Preferred Portfolio 2011-2030



2011 IRP – DSM Portfolio Comparison (Class 2 only)

- 2004 – 7% DSM
  - – DSM included but minor resource
- 2007 - 6% DSM
  - – DSM included but minor resource
- 2008 – 25% DSM
  - – 2nd largest resource addition after wind
- 2011 – 38% DSM
  - – Largest resource addition (bigger than generation)

Challenges

- Low hanging fruit is nearly gone
  - New cost-effective technologies?
  - New delivery channels?
- New codes and standards
- Regulatory barriers and increased scrutiny slows DSM resource acquisition
- Financial penalties internal/external for not hitting DSM targets

Future Wants and/or Needs

- Flexible tariffs
  – Increase speed of program changes
- New delivery channels
  – End of incentives for customers for appliances/home electronics?
  – Shift to mid-market incentives for appliances/home electronics?
  – Let go of tying savings to specific accounts, shifting to leakage analysis
  – Behavior driving program participation
- More load control programs

Questions?

- Thank you!

- Resources
  - IRP - http://www.pacificorp.com/es/irp.html
  - DSM - http://www.pacificorp.com/es/dsm.html

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