

Below are the relative costs for the three scenarios.

\$284 - 978 Billion

2030 O&M Costs - (\$2010 Billions)			
Costs	Scenario 1: Combined Policy	Scenario 2: RPS Implemented Regionally	Scenario 3: Business as Usual
Production Costs - Fuel	\$ 40.8	\$ 73.8	\$ 85.1
Production Costs - Variable O&M	\$ 6.4	\$ 15.5	\$ 18.4
CO2 Costs	\$ 45.3	\$ 0.1	\$ 0.2
Policy Driven Energy Efficiency	\$ 8.9	\$ 1.5	\$ 1.5
CO2 Price Driven Energy Efficiency	\$ 10.0	\$ -	\$ -
Demand Response O&M	\$ 0.6	\$ 0.3	\$ 0.3
Variable Resource Integration	\$ 2.9	\$ 2.5	\$ 1.0
Fixed O&M	\$ 34.7	\$ 52.1	\$ 48.1
Total O&M Costs	\$ 149.6	\$ 145.9	\$ 154.5
Total O&M Costs without CO2	\$ 104.3	\$ 145.7	\$ 154.4
Overnight Capital Costs for Capital through 2030 (\$2010 Billions)			
Costs	Scenario 1	Scenario 2	Scenario 3
Transmission - Generation Interconnection	\$ 49.6	\$ 54.3	\$ 7.3
Transmission - Constraint Relief	\$ 48.4	\$ 13.0	\$ 7.9
Transmission - Voltage Support	\$ 0.5	\$ 0.1	\$ 0.2
Generation	\$ 868.1	\$ 679.4	\$ 242.3
Nuclear Upgrades	\$ 4.9	\$ 4.9	\$ 4.9
Pollution Retrofit Costs	\$ 6.8	\$ 20.2	\$ 22.0
Distributed Generation	\$ -	\$ -	\$ -
Total Capital Costs	\$ 978.2	\$ 771.9	\$ 284.6

\$100 B trans* \$67 B trans \$16 B trans

The cost estimates in the project are based on a variety of generalized assumptions and are only broadly indicative on a relative basis between the futures. The analysis did not include social benefits and costs that would arise from the different policies modeled. Also not included in the above are costs for:

1. Lower voltage transmission projects
- 2.* SSI generation and transmission projects (common to all three scenarios)
3. Generation interconnection costs not included in the overlays, i.e., the generator step-up and the lead lines to the first breaker – the costs for the generator interconnection overlays are included
4. Generation deactivation/decommissioning
5. Capital costs for existing units
6. Transmission O&M.

Jan 2013 Industry Report
to U.S. Dept of Energy

* The \$10-100 billion in estimated transmission costs do not include many billions in investments that the utilities assumed for this expansion study. The SSI projects include more than 180 high capacity transmission projects of 345kV or larger. The enormous generation costs in this planning are greatly dependent on these hidden transmission additions the costs of which would be assumed by ratepayers. The EIPC study done for the U.S. Department of Energy over three years, includes no examination of ratepayer impacts.

Interregional
Transmission
Development and
Analysis for Three
Stakeholder Selected
Scenarios