

EIPC MRN-NEEM Output Report Framework

Model years in report: 2015, 2020, 2025, 2030, 2035, 2040

Dollars in report: 2010 real dollars.

Generation types:

1. BM – Biomass
2. CC – Combined Cycle
3. CSP – Solar Thermal (existing)
4. CT – Combustion Turbine (new)
5. Coal – Coal-fired (includes Pulverized coal, new IGCCs and new IGCC-CCs)
6. Geo – Geothermal
7. H – Conventional Hydro
8. LFG – Landfill Gas
9. Nuc – Nuclear
10. PS – Pumped Storage Hydro
11. PV – Solar Photovoltaic
12. PeakG – CT gas (existing)
13. PeakO – CT oil (existing)
14. ST – Solar Thermal (new)
15. STOG – Steam Turbine-Oil/Gas
16. STWD – Steam Turbine-Wood
17. WT – Wind Turbine On-shore
18. DemandResponse – Demand Response (DR)
19. WT_off – Wind Turbine Off-shore
20. PseudoUnit -- HQ/Maritimes New Units
21. FixedInterchange—HQ/Maritimes Fixed Interchange

Generation Report (*by generation type by model year by NEEM region, unless noted*)

1. Generation (GWh)
2. Energy Demand (TWh) (*by model year by NEEM region*)
3. Generation Minus Energy Demand (*by model year by NEEM region*)
4. Fuel Use (TBtu)
5. Annual Emissions
 - a. SO₂ Emissions (MM short tons)
 - b. NO_x Emissions (MM short tons)
 - c. CO₂ Emissions (MM short tons)
 - d. CO₂ Emissions (MM metric tons)
6. Fuel Cost (M\$)
7. Emission Cost (M\$)
 - a. SO₂ - Title IV CAIR
 - b. NO_x – CAIR Seasonal
 - c. Hg - CAMR
 - d. NO_x – CAIR Annual
 - e. CO₂
 - f. RGGI (CO₂)
8. Base Variable O&M (M\$)

9. Retrofit Variable O&M (M\$)
10. Base Fixed O&M (M\$)
11. Retrofit Fixed O&M (M\$)
12. Levelized Capital Cost (M\$)
13. Levelized Retrofit Capital Cost (M\$)
14. Total Costs (M\$) *(total of #6 through #13)*
15. RPS ACP Payments (M\$)
 - a. RPS Generation Compliance Payments *(by model year by RPS Program)*
 - b. RPS Capacity Compliance Payments *(by model year by RPS Program)*
16. Transmission Costs (M\$) *(by model year by NEEM region)*
 - a. Wheeling
 - b. Friction

Capacity Report *(by generation type by model year by NEEM region, unless noted)*

1. New Build Capacity (MW)
2. Cumulative New Build Capacity (MW)
3. Retirements (MW)
4. Cumulative Retirements (MW)
5. Total Installed Capacity (MW)
 - a. *Note: DR and Nuclear uprates/end of license retirements are reported here*
6. Retrofit Capacity *(by retrofit type by model year by NEEM region)*
 - a. *Retrofit types are: FGD (flue-gas desulfurization), SCR (selective catalytic reduction), SNCR (selective non-catalytic reduction), ACI90 (activated carbon injection), RPJ90 (ACI + baghouse), PSCEQ (CCS retrofit to pulverized coal).*
7. Reserve Margin (total peak demand, peak demand + reserve requirement, DR, capacity net of renewable capacity reserve value adjustment) (MW) *(by model year by NEEM region)*

Transmission Report

1. *Year, Line, Base Transfer Limit (MW), To NEEM Region, From NEEM Region, To Region Price (\$/MWh), From Region Price (\$/MWh), Shadow Price (\$/MWh), Hurdle (\$/MWh)*
 - a. *For all model years and load blocks and paths in each direction for the EI*

MRN Report (report provided for Base Case of each Future only)

1. U.S. GDP by Model Year (Billions of \$)
2. Wellhead and Henry Hub Gas Prices by Model Year (\$/mmBtu)
3. CO2 Emissions (MM metric tons)
 - a. By combustion source (coal, gas, oil) and sector of the U.S. economy
 - i. OIL – Refined petroleum products
 - ii. SRV – Services
 - iii. MAN – Manufacturing
 - iv. EIS – Energy intensive sectors
 - v. TRN – Commercial Transportation services
 - vi. AGR – Agriculture
 - vii. M_V – Motor Vehicles
 - viii. C – Households
 - ix. G – Government
 - x. Note that the electric sector is reported in the Generation Report.