

Grundy County Regional Energy Profile



Nuclear

Illinois leads the nation in electricity generation from nuclear power and accounts for one-eighth of the national's total nuclear power generation. In 2018, 52% of net electricity generation in Illinois was produced by the state's 6 nuclear power plants with their 11 reactors. Nuclear power accounts for nearly half of all Illinois power generations, including a 47.8% share at more than 96 million megawatt hours in 2010. The three plants highlighted below represented 55.1% of the total Illinois nuclear energy portfolio in 2010 (U.S. Energy Information Administration, 2019).

- **Dresden Generating Station**
 - Nation's first full-scale private nuclear plant, began operation in 1960
 - Unit 2 is capable of generating 869 MW; Unit 3, 871MW
 - 2016 Net Generation: 15.4 million MWh
 - 2016 Capacity Factor: 95.3%
 - Current licenses extend through 2029 and 2031
 - Power for 1.5 million homes (Exelon Corporation, 2017)
- **Braidwood and LaSalle County Generating Stations**
 - Located 1 mile east and 3 miles west of Grundy County respectively
 - Each is a 2-reactor facility with 2016 output of 19 million MWh
 - Combined 4.3 million homes served (Exelon Corporation, 2017)
- **General Electric Nuclear Fuel Storage Facility**
 - Pool Storage Facility operating adjacent to Dresden Nuclear
 - NRC license extended to 2022

 **Wind**

- **Horizon Wind Energy Top Crop I Wind Farm**
 - Spans Grundy, Livingston and LaSalle Counties
 - 68 GE 1.5 MW turbines; 102 MW total capacity
 - Provides enough power for 28,000 homes
 - Contracted to sell to Commonwealth Edison in 2012; currently selling output in regional wholesale market (Horizon Wind Energy LLC, 2011)
- **Horizon Wind Energy Top Crop II Wind Farm**
 - Located wholly within Grundy County
 - 132 GE 1.5 MW turbines; 198 MW total capacity
 - Provides enough power for 54,000 homes
 - Currently selling output to Constellation Energy (Horizon Wind Energy LLC, 2011)

 **Natural Gas Processing**

- **Aux Sable Liquid Products**
 - Capable of processing 2.1 billion cubic feet per day of natural gas
 - Daily extracting and fractionating capabilities of 102,000 barrels per day of NGL products (Aux Sable USA)
 - Terminus of the Alliance Pipeline extending from British Columbia across multiple natural gas delivery points

 **Natural Gas Power Generation**

- **Kendall Power**
 - Located 1 mile north of Grundy County line in Minooka
 - Combined-cycle facility with a capacity of 1,160 MW (SNC-Lavalin, 2005)



Alternative Fuel

- **Renewable Energy Group (REG) Seneca, LLC**
 - Biodiesel producer capable of 60 million gallons per year
 - Utilizes high and low free fatty acid feedstocks (Renewable Energy Group, Inc., 2019)



Oil Refining

- **ExxonMobil Joliet Refinery**
 - Located 3 miles east of Grundy County line in Channahon
 - 24th highest operable capacity refinery in the United States at 238,600 bbl/d (U.S. Energy Information Administration, 2011)

References

- Aux Sable USA. (n.d.). *Aux Sable USA*. Retrieved September 9, 2019, from Aux Sable: <http://www.auxsable.com/us/index.htm>
- Exelon Corporation. (2019). *Braidwood Generating Station*. Retrieved September 9, 2019, from Exelon Corporation: <http://www.exeloncorp.com/powerplants/braidwood/Pages/profile.aspx>
- Exelon Corporation. (2019). *Dresden Generating Station*. Retrieved September 9, 2019, from Exelon Corporation: <http://www.exeloncorp.com/PowerPlants/dresden/Pages/profile.aspx>
- Exelon Corporation. (2019). *LaSalle County Generating Station*. Retrieved September 9, 2019, from Exelon Corporation: <http://www.exeloncorp.com/PowerPlants/lasalle/Pages/profile.aspx>
- Horizon Wind Energy LLC. (2011). *Top Crop II Wind Farm, Illinois*. Retrieved August 3, 2011, from EDP Renewables: <http://www.horizonwind.com/projects/whatwevedone/top-crop-II.aspx>
- Horizon Wind Energy LLC. (2011). *Top Crop Wind Farm I, Illinois*. Retrieved August 3, 2011, from EDP Renewables: <http://www.horizonwind.com/projects/whatwevedone/top-crop.aspx>
- Renewable Energy Group, Inc. (2019). *REG Seneca*. Retrieved September 9, 2019, from Renewable Energy Group: <http://www.regfuel.com/locations/biorefineries/production-mode/reg-seneca>
- SNC-Lavalin. (2005). *Minooka Combined Power Cycle Plant*. Retrieved August 4, 2011, from SNC-Lavalin Thermal Power: http://www.slthermal.com/pdf/Minooka%20_Kendall_,%20Illionis.pdf
- U.S. Energy Information Administration. (2010, September). *Illinois Nuclear Profile*. Retrieved August 4, 2011, from U.S. Energy Information Administration: http://www.eia.gov/cneaf/nuclear/state_profiles/Illinois/IL.html
- U.S. Energy Information Administration. (2011, June). *U.S. Refineries Operable Capacity*. Retrieved August 3, 2011, from U.S. Energy Information Administration: <http://www.eia.gov/neic/rankings/refineries.htm>