



DYNEGY

Ohio Energy Mandates Study Committee

June 1, 2015- Columbus, OH

Dean Ellis, Vice President - Regulatory Affairs

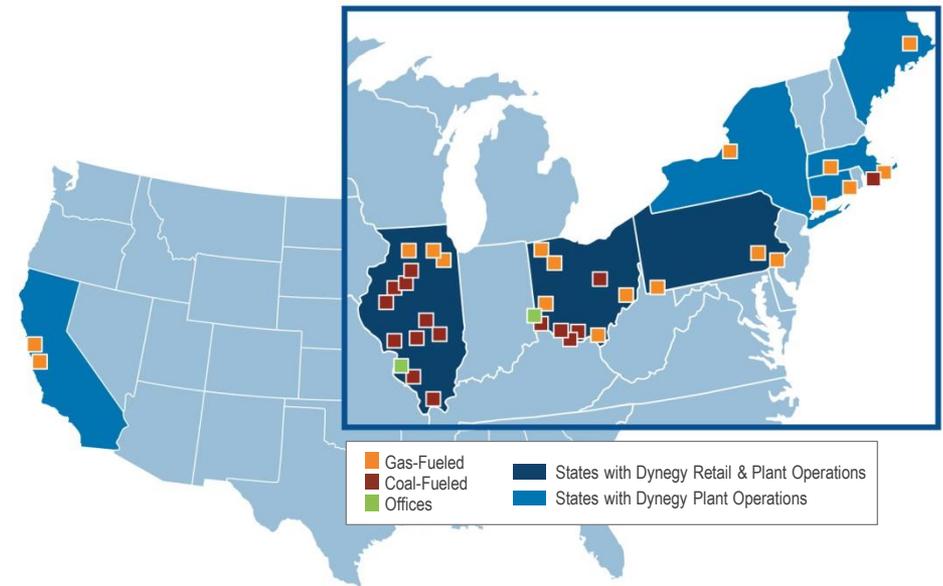


Energizing you, powering our communities.

Dynegy's Geographic and Fuel Diversity

Dynegy Quick Facts

- **Business:** Dynegy is an independent power producer, with no captive customers or ratepayers
- **Footprint:** Located in 8 states (California, Connecticut, Illinois, Ohio, Massachusetts, Maine, New York and Pennsylvania)
- **Generating Capacity:** 26 GW, capable of supplying more than 21 million households
- **Power Plants:** 35
- **Retail customers:** 830,000 residential customers and 23,000 commercial, industrial and municipal customers served through our Dynegy Energy Services and Homefield Energy companies
- **Annual Revenues:** \$5.5 billion approx.
- **Employees:** 2,730 professionals, including approximately 1,380 union members
- **NYSE listed:** DYN



CAISO

- **Moss Landing Energy Facility**
Moss Landing, CA
- **Oakland Energy Facility**
Oakland, CA

MISO (IPH)

- **Coffeen Power Station**
Montgomery County, IL
- **Duck Creek Power Station**
Canton, IL
- **Edwards Power Station**
Bartonville, IL
- **Joppa Power Station**
Joppa, IL
- **Newton Power Station**
Jasper County, IL

MISO (CoalCo)

- **Baldwin Energy Complex**
Baldwin, IL
- **Hennepin Power Station**
Hennepin, IL
- **Havana Power Station**
Havana, IL
- **Wood River Power Station**
Alton, IL

PJM

- **Conesville Power Station**
Conesville, OH
- **Dicks Creek Energy Facility**
Monroe, OH
- **Elwood Energy Facility**
Elwood, IL
- **Fayette Energy Facility**
Masontown, PA
- **Hanging Rock Energy Facility**
Ironton, OH
- **Kendall Energy Facility**
Minooka, IL
- **Killen Power Station**
Manchester, OH
- **Kincaid Power Station**
Kincaid, IL
- **Lee Energy Facility**
Dixon, IL
- **Liberty Energy Facility**
Eddystone, PA
- **Miami Fort (CT) Power Station**
North Bend, OH
- **Miami Fort Power Station**
North Bend, OH
- **Ontelaunee Energy Facility**
Reading, PA
- **Richland Energy Facility**
Defiance, OH
- **Stryker Energy Facility**
Stryker, OH

- **Stuart Power Station**
Aberdeen, OH
- **Washington Energy Facility**
Beverly, OH
- **Zimmer Power Station**
Moscow, OH

ISO-NE/NYISO

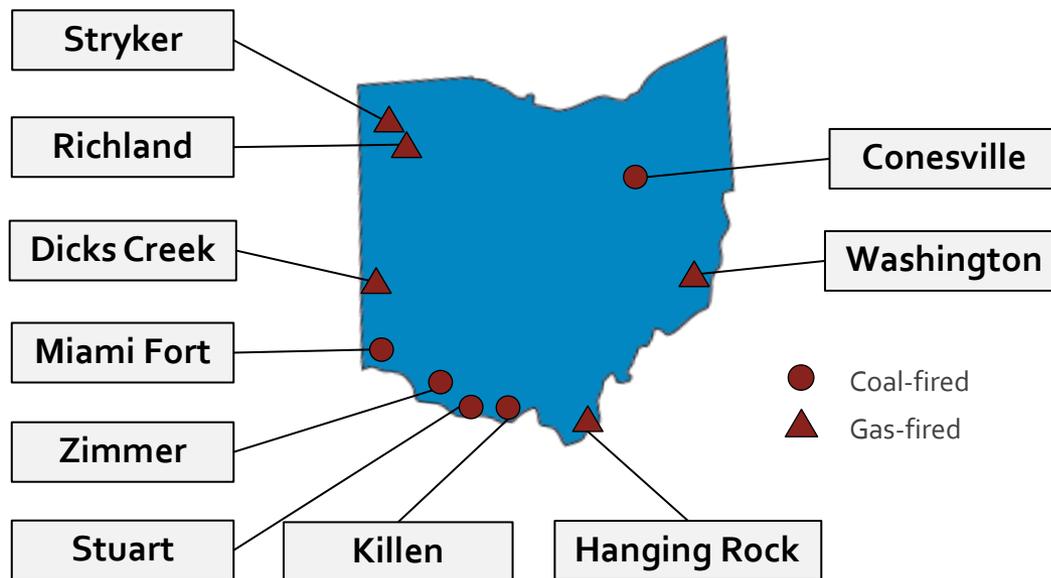
- **Brayton Point Power Station**
Somerset, MA
- **Casco Bay Energy Facility**
Veazie, ME
- **Dighton Energy Facility**
Dighton, MA
- **Independence Energy Facility**
Oswego, NY
- **Lake Road Energy Facility**
Dayville, CT
- **Masspower Energy Facility**
Indian Orchard, MA
- **Milford Energy Facility**
Milford, CT

Offices

- Houston, TX
- Collinsville, IL
- Cincinnati, OH

Dynegy in Ohio

- ✓ Dynegy owns a retail business, four natural gas-fired and two oil-fired power stations, and partial interests in five coal-fired power stations.
- ✓ All of the power stations operate in the PJM wholesale market and have a net generating capacity of approximately 5,300 MW, which is enough electricity to supply nearly 4 million homes.
- ✓ Dynegy Energy Services provides about 7 million MWh to approximately 100,000 retail customers Ohio.
- ✓ More than 450 Ohio-based employees operate and support these stations and the retail business.



Station	Location	Net Capacity (MW) ^(a)	Primary Fuel	Dispatch Type	Ownership Interest
Dicks Creek	Monroe, OH	153	Gas	Peaking	100%
Hanging Rock	Ironton, OH	1,296	Gas	Intermediate	100%
Washington	Beverly, OH	648	Gas	Intermediate	100%
Killen	Manchester, OH	204	Coal	Baseload	33.0% *
Stuart	Aberdeen, OH	904	Coal	Baseload	39.0% *
Conesville 4	Conesville, OH	312	Coal	Baseload	40.0% *
Zimmer	Moscow, OH	628	Coal	Baseload	46.5% *
Miami Fort 7&8	North Bend, OH	653	Coal	Baseload	64.0% *
Miami Fort (CT)	North Bend, OH	68	Oil	Peaking	100%
Richland	Defiance, OH	447	Gas	Peaking	100%
Stryker	Stryker, OH	19	Oil	Peaking	100%
Ohio Generation TOTAL		5,332			
Dynegy National Generation TOTAL		25,758			

*Ownership Interests
 Killen: 33.0% DYN, 67.0% DPL
 Stuart: 39.0% DYN, 35.0% DPL, 26.0% AEP
 Conesville 4: 40.0% DYN, 16.5% DPL, 43.5% AEP
 Zimmer: 46.5% DYN, 28.1% DPL, 25.4% AEP
 Miami Fort 7&8: 64.0% DYN, 36% DPL

Market Design

Market Design “Heat Map”



	PJM	ISO-NE	MISO	ERCOT	CAISO
DYN market footprint, in MW and as % of portfolio	~11,000 MW, ~40%	~4,000 MW, ~15%	~7,000 MW, ~25%	N/A	~2,700 MW, ~10%
High Scarcity Price Caps	Favorable	Favorable	Favorable	Favorable	Favorable
Capacity Market	Favorable	Favorable	Favorable	Unfavorable or non-existent	Unfavorable or non-existent
Forward Capacity Market	Favorable	Favorable	Needs Improvement	Unfavorable or non-existent	Unfavorable or non-existent
Sloped Demand Curve	Favorable	Favorable	Unfavorable or non-existent	Unfavorable or non-existent	Unfavorable or non-existent
Stable Market Rules	Favorable	Favorable	Needs Improvement	Favorable	Unfavorable or non-existent
Performance Incentives	*	Favorable	Unfavorable or non-existent	Unfavorable or non-existent	Unfavorable or non-existent

Both PJM and ISO-NE are leading the way with market designs that send appropriate price signals to address system stresses

Dynegy's Investment in Ohio

Summer Reliability Upgrade

Sophisticated diagnostic equipment has been installed to evaluate an upgrade at a large coal plant, which would restore its summer capability by 4% (30 MW)

Retail Incentive

By backing our Retail customers with our own generation there is an added incentive to invest in reliability

Overhauls, Upgrades and Efficiency Improvements

Completed major overhauls and evaluating summer efficiency improvements at a cost of \$10 MM

Expand Services

Evaluating grid-restoration service (a.k.a. black start capability) at a cost of \$20 MM

Winter Reliability Upgrades

Restoring and adding dual-fuel capability to large coal plants to improve cold-weather start-up at a cost of approx. \$7 MM

Capacity Upgrade

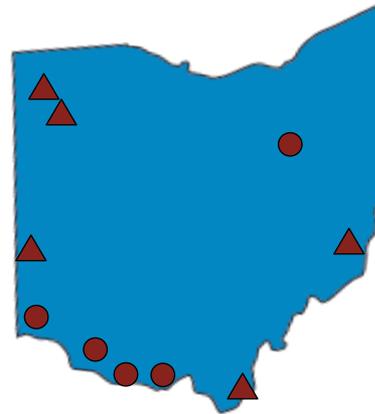
\$30 MM upgrade at two of the natural-gas fired plants, increasing capacity by 120 MW

Efficiency Improvements

Activated teams with joint owners (AEP, DPL) to collaborate and reduce inefficiencies

Reliability Goals

Investing upwards of \$40 MM in additional capital projects to achieve top-quartile industry performance and reliability



In addition to the \$3 billion investment to purchase the plants, Dynegy is investing significant additional resources into the fleet

Markets Preferred Over Mandates

Dynegy supports the integration of renewables and energy efficiency into the competitive wholesale and retail energy markets as long as there is a level playing field

- Mandates and subsidies by their very nature tend to create an un-level playing field. Worse, mandates/subsidies can potentially lead to even more mandates/subsidies as those not benefitting from the original mandate/subsidy seek special deals of their own to counteract the negative impacts of the original mandate/subsidy.

Care needs to be taken by state policy makers when crafting mandates. Mandates should be:

- As competitively neutral as possible in terms of the wholesale and retail markets - the mandate should be narrowly drawn to limit the impact on other forms of generation, or favor utility distribution companies or their customers over retail electric suppliers and their customers.
- Designed with an eye towards keeping electricity affordable - states compete against one another for investment, and high electricity prices regardless of cause are a disincentive to investment.

State policy should assure a level playing field for all market participants, without providing a competitive advantage to some and distorting market signals that otherwise ensure stable, reliable and affordable power for Ohio customers of all classes.

Renewables and Energy Efficiency have a place in the nation's energy mix, and mandates should be competitively neutral as possible

RPS Programs Should Be Periodically Assessed . . .

Taking time to periodically assess existing RPS programs and to recalibrate them as necessary strikes us as a best practice.

- Markets evolve (e.g. distributed generation “next big thing”)
- Technologies advance (e.g. solar panel prices drop)
- Federal tax policies evaporate (e.g. Wind PTC)
- New drivers (e.g. 111(d) compliance) emerge
- Fundamentals change (e.g. historically low nat. gas prices)

But once such an assessment has been made and any resulting changes undertaken, give those changes some time to play out.

Certainty allows merchant generators and marketers like Dynegy to plan their compliance strategies and investments with confidence.

. . . But Not Be Continually in Flux.

Environmental Programs without Mandates or Subsidies

- Fly ash and other by-products from coal combustion is recycled for beneficial re-use, including as a substitute for Portland cement in concrete and as gypsum in wallboard
 - In addition to safely re-using coal by-products in lieu of landfilling, the re-use reduces the amount of Portland cement and gypsum produced
- The reduction of cement and gypsum production directly offsets the amount of CO₂ generated in those manufacturing processes
 - Dynegy in Ohio currently re-cycles 56% of its fly ash, 89% of its gypsum, and 26% of its bottom ash

Re-use of fly ash has many benefits in addition to significantly reducing CO₂, including eliminating the need for further development of infrastructure or natural resources – all without subsidies or madates

Initial Recommendations and Conclusions

Dynegy has invested – and continues to invest - significant *private* capital, not rate-payer dollars, in Ohio

Care needs to be taken when issuing RPS and EE mandates to ensure that they don't distort the markets

Predictable, competitive markets will incent investment to meet Ohio's needs – not out-of-market solutions

State policy should assure a level playing field for all market participants, without providing a competitive advantage to some and distorting market signals

Dynegy continues to invest in Ohio given its historically favorable environment including pragmatic state policies and well-designed electricity market – Ohio needs to continue down the path it has begun