



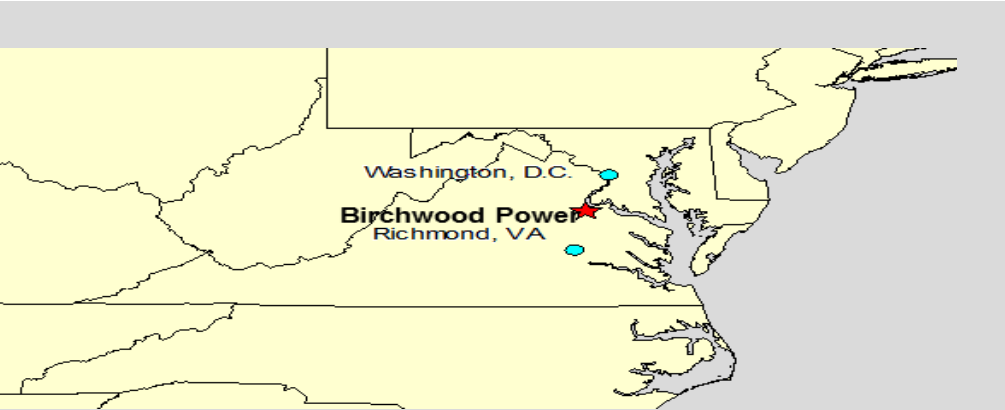
Virginia Carbon Workgroup Meeting – December 2016



Birchwood Overview

Birchwood Power Partners, L.P. is an Independent Power Producer that owns a 240 MW coal generation facility engaged in the sale of energy & capacity under long-term contracts with Dominion Virginia Power.

- The facility uses low sulfur coal and has state-of-the-art environmental control equipment



- Location:** King George, Virginia (PJM South)
- Facility:** 240 MW Pulverized Coal Fired Generation
- Commercial Operations:** Nov 1996
- Ownership:** Affiliates of GE Energy Financial Services (50%) & J-Power Development Co, LTD. (50%)
- Equipment:** ABB/CE Pulverized Coal-Fired Boiler; GE D5 Turbine:
- Fuel:** Eastern Bituminous Coal with Low sulfur (<1%) , and No. 2 fuel oil used for startup
- Emission Controls:**
 - NOx: Low NOx burners, SCR/Selective Catalytic Reduction
 - SO2: Dry FGD (Scrubber);
 - Particulate Matter: Baghouse
- Customer:** Dominion Virginia Electric & Power Co. (through 2021)
- Operator:** NAES
- Footprint:** 320 Acre Site / 120 Acre Footprint



Contribution to State/Community

Birchwood is a direct contributor to the economy locally and within the state

Direct Jobs: ~65 people at site

- ~60 O&M contracted employees (NAES), ~4 Asset Mgt (NAES), 1 owner rep (GE)
- Mostly from local/within state
- Continuous training program paid by Birchwood

Provides power to Virginia utility through 2021

- Customer: Dominion Virginia Electric & Power Co ('Dominion') Richmond-based, serving ~2.4 million customers in VA & NC
- Birchwood provides power to Dominion since 1996 as NUG (Non-Utility Generator)
- Part of Dominion's Integrated Resource Plan in Virginia

Other Contracts in VA:

- ~\$0.6-2MM / yr. Ash disposal contract with adjacent landfill & local trucking through 2021
- Local lime: ~\$0.5-2MM / yr, sourced from VA through 2021
- Local fuel oil: ~\$0.2-2.2MM /yr, sourced from Richmond, VA
- Equipment repairs (vary by year)

Taxes

- ~\$1MM property tax per year
- Machinery and tool

Community Support

- Support ~25 community programs including seat on local YMCA and Economic boards
- Wildlife Habitat Council - Wildlife at Work program
 - ▶ Rescued Bald Eagle in 2014

Environmental & Health/Safety Accomplishments

- Excellent environmental record:
 - 9+yrs zero discharge
 - No NOVs since 1996 COD
 - No Air or Waste Water exceedances since COD
 - MATS LEE qualification
- OSHA's VPP (Voluntary Protection Program) STAR certified





Independent Power Producers at Risk

Birchwood is one of eight existing Independent Power Producers (excl. peaking facilities) in Virginia

- IPPs represent 3.3 GW (11%) of total energy resources in Virginia; all of these plants were project-financed and have private equity owners.
- Birchwood, like the other IPPs in VA, is disadvantaged vis-à-vis regulated utilities:
 - Lacks ability to average out emissions across a fleet
 - There is no mechanism to be reimbursed for incremental environmental costs (including GHG costs) by ratepayers, like regulated utilities



Virginia Energy Plan

Virginia's Energy Plan recognizes that Birchwood is one of four state-of-the-art Coal Plants that should operate until 2050

- Virginia recognizes that Birchwood is needed as part of the state's generation mix:
 - Birchwood is close to Northern Virginia load
 - Important for grid reliability
 - Ensures fuel diversity
 - Maintains competitiveness with regulated generation

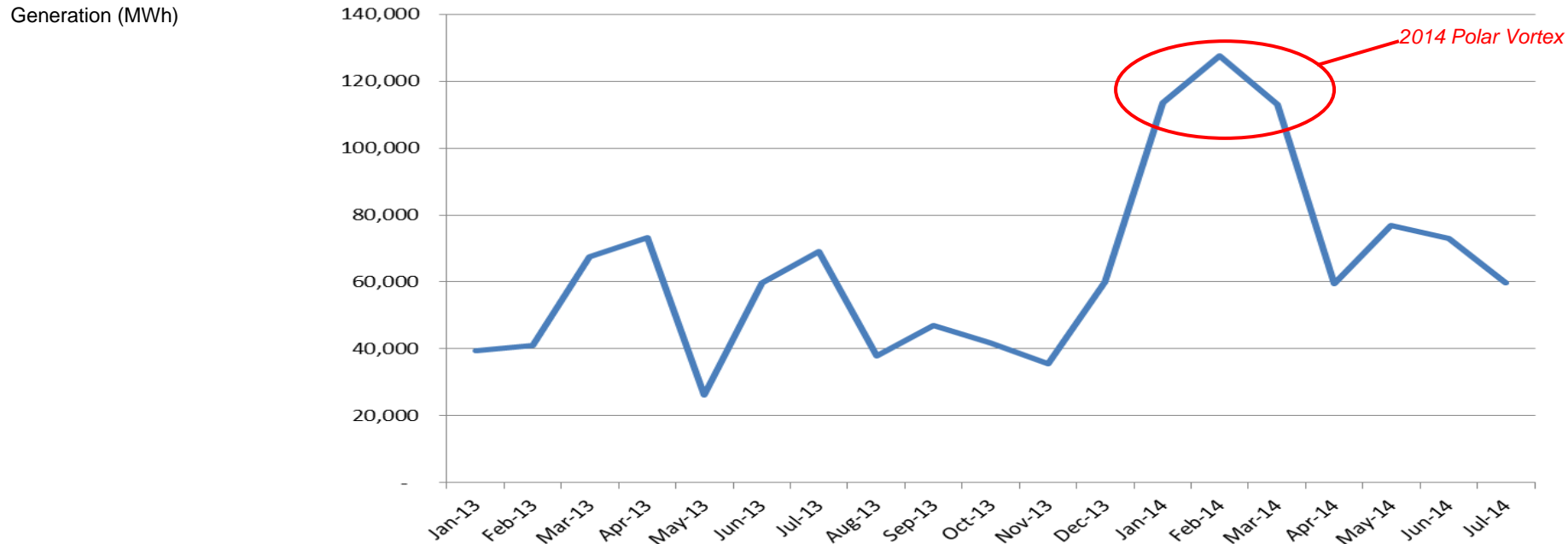
Maintaining Fuel Diversity & Ensuring Grid Reliability in Virginia

- Birchwood Power Partners believes that coal-fired generation is an important part of the generation mix in Virginia
- During the Polar Vortex, Birchwood was 100% available to dispatch and was operated at a high capacity factor during the winter of 2014
 - On-site fuel supply in the event of a natural gas curtailment or spike in natural gas prices due to extreme weather events
 - Birchwood is helpful for grid reliability, particularly during extreme weather events
 - Birchwood is close to load in Northern Virginia
- Birchwood ensures fuel diversity in the state
- As an independent power producer, Birchwood will help maintain competitiveness with regulated generation



Grid Reliability

Birchwood provides reliability during extreme weather and peak demand periods



- Birchwood is consistently dispatched during these periods
 - Birchwood produced enough MWh in 1Q 2014 to power 100k Virginia households*
 - Capacity factors >60% during Polar Vortex (~100% availability)
 - Increased dispatch during summer peak months

EPA modeling has Birchwood shutting down or idling for multiple years. Under these scenarios, Birchwood would not be available for grid reliability.



GHG CO₂e / Capacity Factor / Net Generation

Year	Annual Capacity Factor	Greenhouse Gas / Metric Tons	Net Generation (MWs)
2005	86.81%		1,672,807
2006	62.61%		1,257,463
2007	64.03%		1,233,852
2008	80.90%		1,563,434
2009	25.59%	485,798	493,146
2010	42.65%	791,980	821,886
2011	26.36%	485,797	507,931
2012	21.01%	410,710	406,071
2013	31.05%	595,306	598,311
2014	44.46%	817,352	856,750
2015	34.30%	548,683	555,043



Virginia New Power Plants

Plant Name	COD or Expected COD	Capacity Megawatts (Gross)	CO2 Emission Rate/Limit	CO2 Limit TPY	Fuel Type	Service Type	Unit Type
CPV-Smyth Generation Company, LLC	2017	700	656,337 lb/hr (proposed)	2,355,189	Natural Gas	Base Load	Combined Cycle Turbines
Stonewall/Green Energy	2017	750	903 lb/MWH	2,424,396	Natural Gas	Distributed Generation	Turbine & Ext. Comb.
Dominion – Brunswick	2015	1300	920 lb/MWH	5,291,706	Natural Gas	Base Load	Turbine
Dominion – Greenville	2018	1600	903 lb/MWH (proposed)	5,783,515	Natural Gas/Fuel Oil	Base Load	Turbine
Gateway Cogeneration 1 LLC	Unknown	128	1,050 lb/MWH	295,961	Natural Gas	Base Load	Turbine
TOTAL				16,150,767			