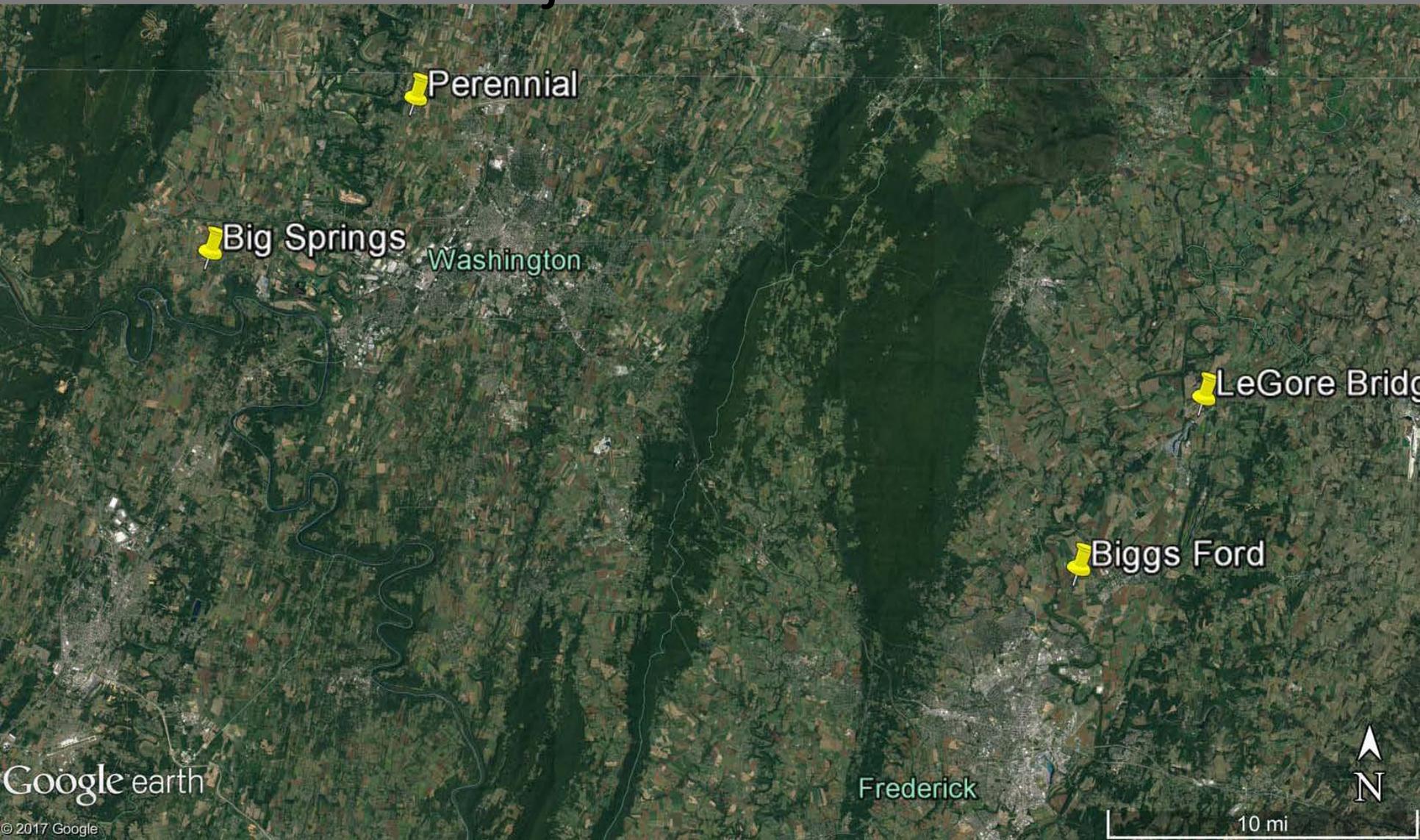


PPRAC - November
15, 2017



Recent, Ongoing and Upcoming CPCN Cases

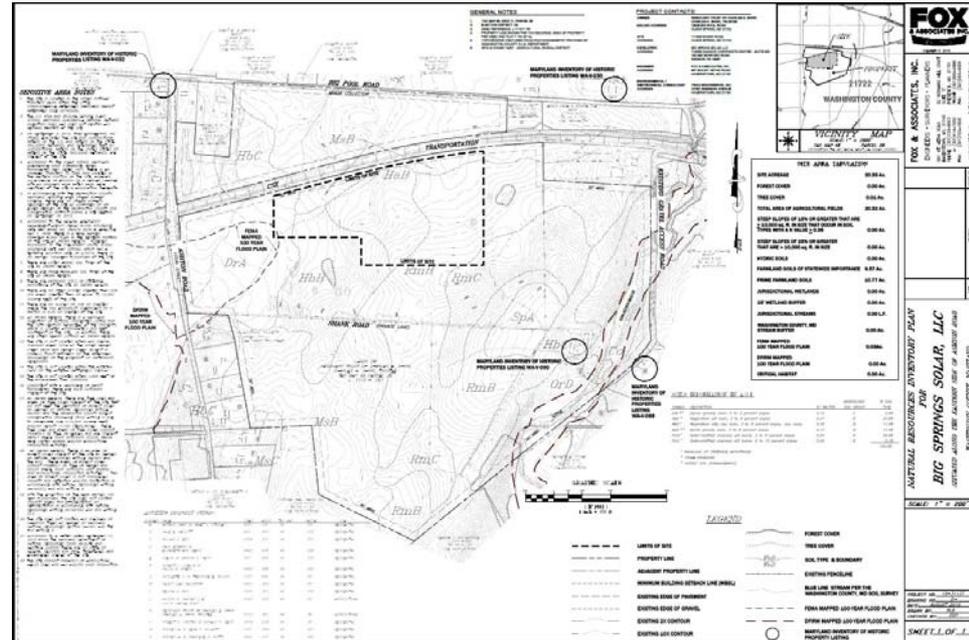
Frederick & Washington Solar Projects



Big Spring Solar - 9402

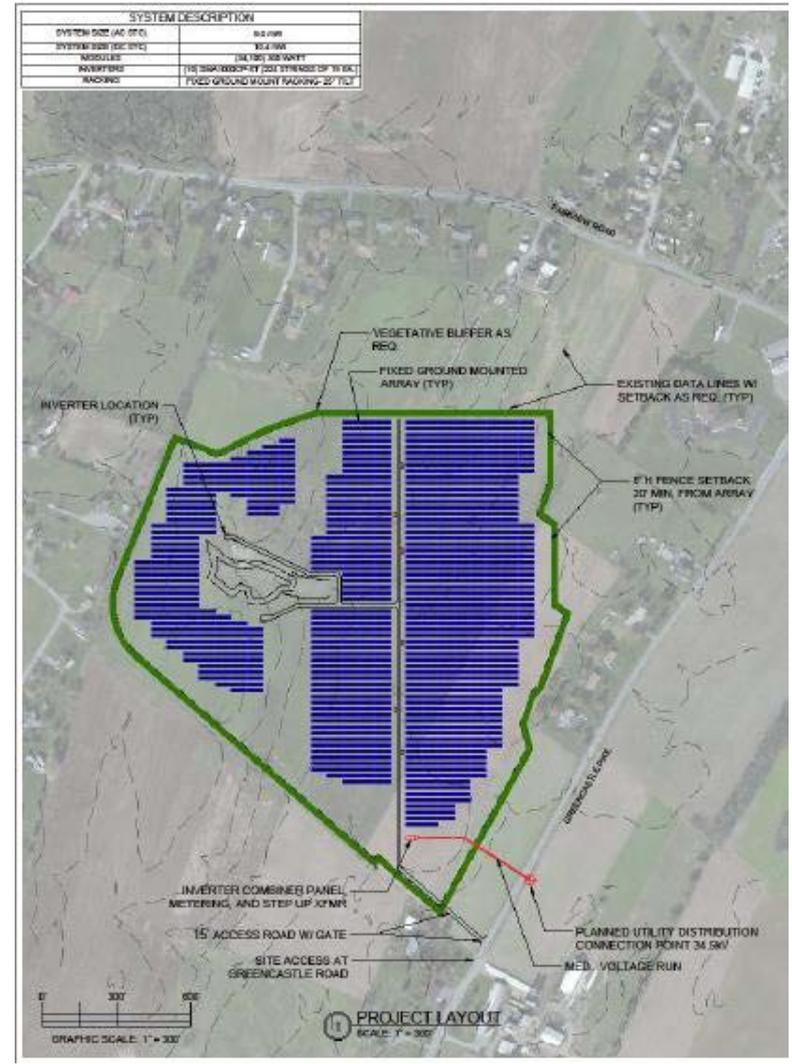


- 3.5 MW Solar PV proposed by Community Energy on 46 acres of agricultural land in Washington County
- 14,500 panels of fixed-tilt design
- Prime Farmland and Farmland of Statewide Importance comprise the entire site
- Procedural schedule suspended more than a year due to disputed FCA conditions
- Parties submitted concurrent post-hearing briefs in September 2017
- Proposed Order granting CPCN issued 29 September 2017; final order issued 29 October 2017.



Perrenial Solar - 9408

- 8 MW Solar PV proposed by Community Energy on 70 acres of agricultural land in Washington County
- 34,000 PV modules of fixed-tilt design
- Procedural schedule has been suspended since 16 March 2016 pending outcome of arguments about FCA in other cases
- Prime Farmland and Farmland of Statewide Importance



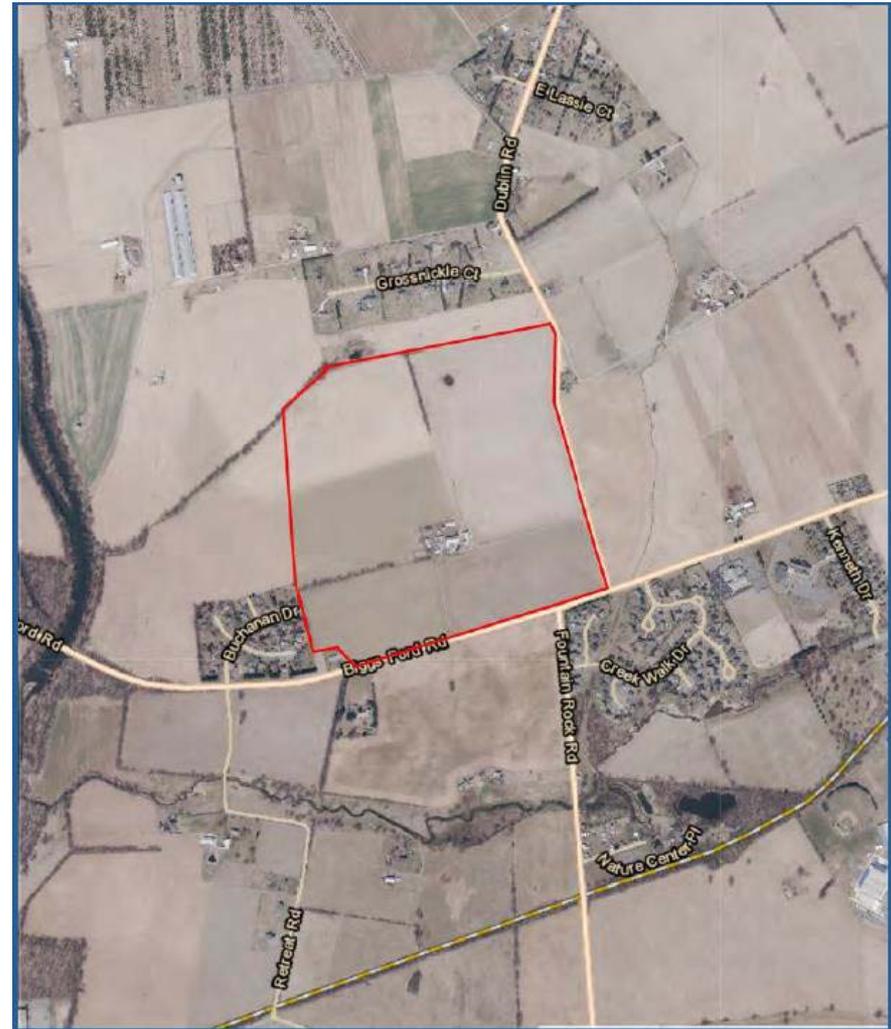
LeGore Bridge Solar - 9429

- 20 MW Solar PV proposed by Coronal Energy on 170 acres of agricultural land in Frederick County
- 82,000 panels of single-axis tracking
- PPRP filed testimony and revised recommended license conditions on 13 April 2017
- Letter filed by Frederick County on 12 April 2017 asks that CPCN not be expedited or granted “waiver”
- Proposed Order issued on 3 October 2017 and will be final on 3 November 2017 if not appealed



Biggs Ford Solar - 9439

- 15 MW Solar PV proposed by Coronal Energy on 135 acres of agricultural land in Frederick County
- 61,000 panels of single-axis tracking
- County Solar Bill (17-07) does not allow project to be approved through County due to Priority Preservation Areas, prime farmland, and site limitations
- PPRP recommended denial of CPCN and hearing held on 18 September 2017
- Briefs for the case were filed 4 October 2017



Kent & Queen Anne's Solar Projects



Google earth

© 2017 Google
Data Sourced from NOAA, U.S. Navy, NGA, GEBCO

Massey Solar - 9407

- 5 MW Solar PV proposed by Community Energy on 55 acres of agricultural land in Kent County
- 21,000 panels of single-axis tracking
- Case opened in late 2015, but suspended pending decisions on FCA and solar
- Applicant resubmitted site management plan
- Revised procedural schedule not established

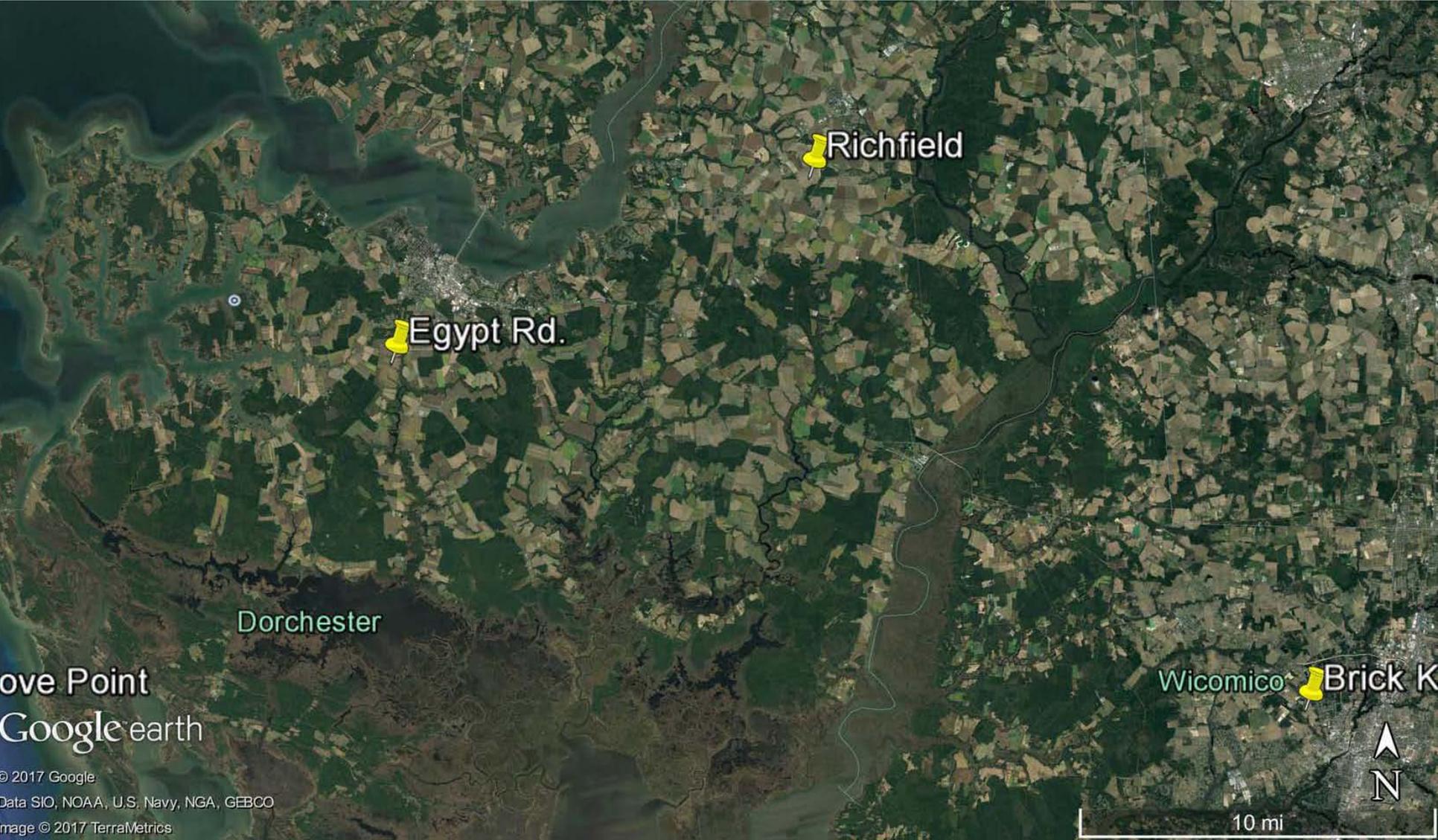


Casper Solar - 9450

- 36.7 MW Solar PV proposed by Coronal Energy on 360 acres of agricultural land in Queen Anne's County
- 150,000 panels of single-axis tracking design
- Filed April 2017; revised procedural schedule issued 11 October 2017 with proposed order targeted for 20 April 2018
- Voluntary compliance with FCA administered through County ordinance
- Site is within a Priority Preservation Area



Dorchester Solar



ove Point
Google earth

© 2017 Google
Data SIO, NOAA, U.S. Navy, NGA, GEBCO
Image © 2017 TerraMetrics

10 mi



Richfield Solar - 9475



- 50 MW Solar PV proposed by Richfield Solar Energy LLC on a total of 380 acres of land in Dorchester County
- Project includes solar PV array on four parcels and rights-of-way for electrical collection facilities on three parcels
- 203,000 panels installed mounted on single axis tracking system
- Site land zoned agricultural conservation; applied for special exception to Dorchester County in August 2017
- Procedural schedule issued 9 October 2017



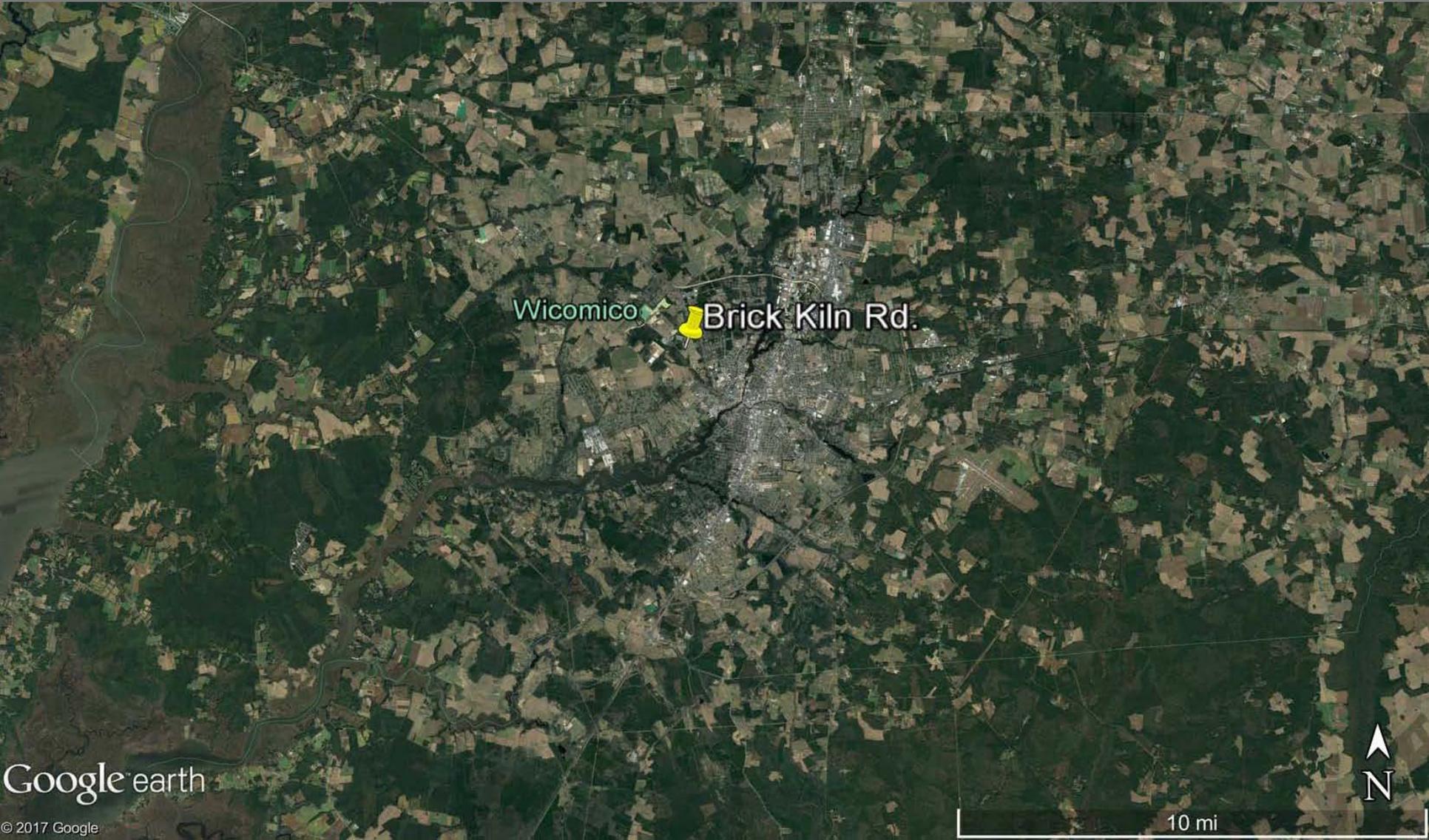
Richfield Solar Site Summary

Dorchester County, State of Maryland

Rev. 00
June 14, 2017

Invenergy

Wicomico County Solar Projects



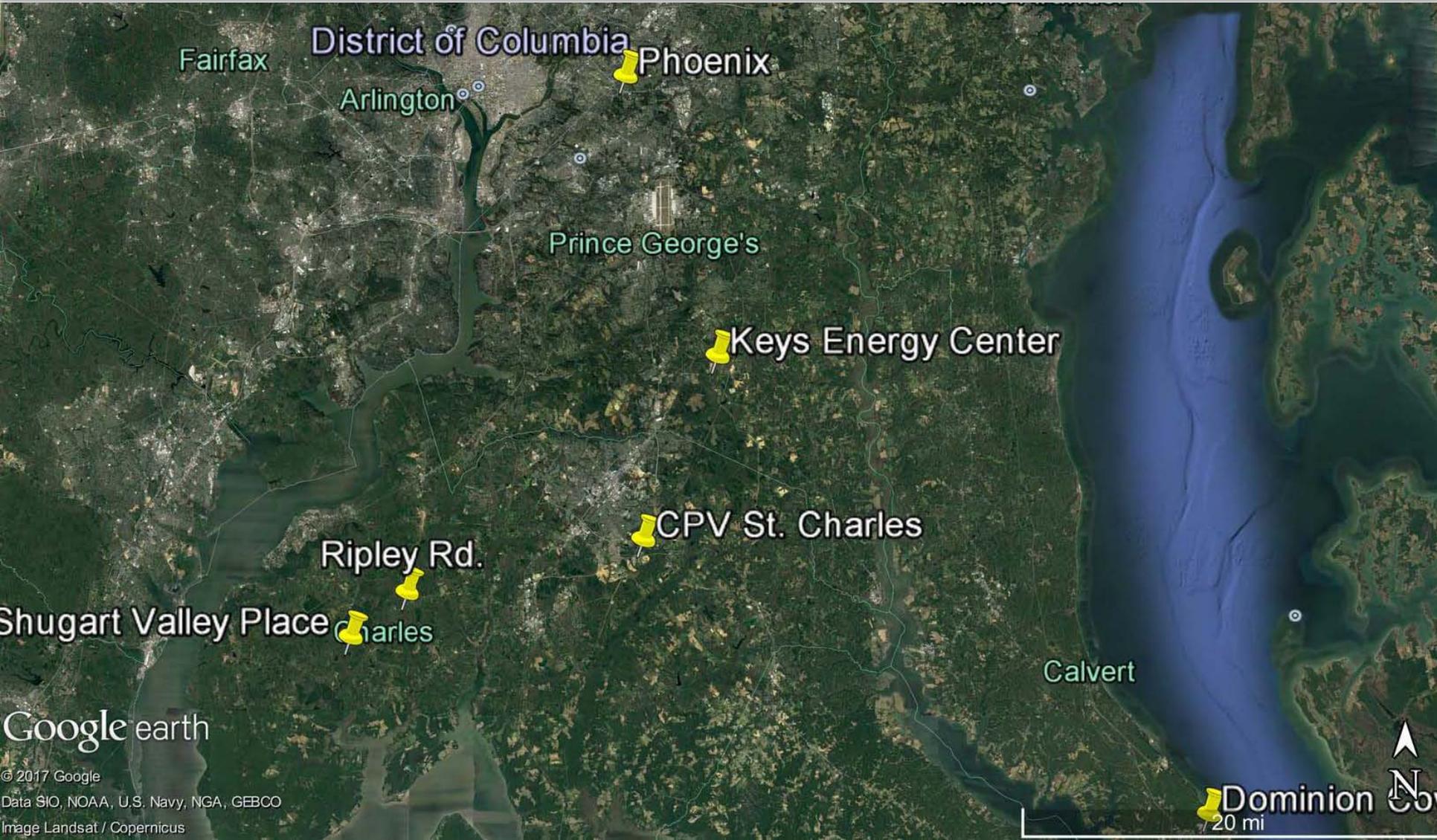
Brick Kiln Road Solar - 9454



- 5.4 MW solar array proposed by Brick Kiln Road Solar, LLC (a subsidiary of Urban Grid Solar, LLC) in Wicomico County
- Project will occupy 36 acres of a 74 acre site
- 23,240 PV mounted on a single axis horizontal tracking system
- Property zoned mainly industrial with small part zoned residential
- Filed in June 2017; procedural schedule issued 8 August 2017; proposed order target date 22 January 2018
- Direct testimony provided on 13 October 2017 by applicant



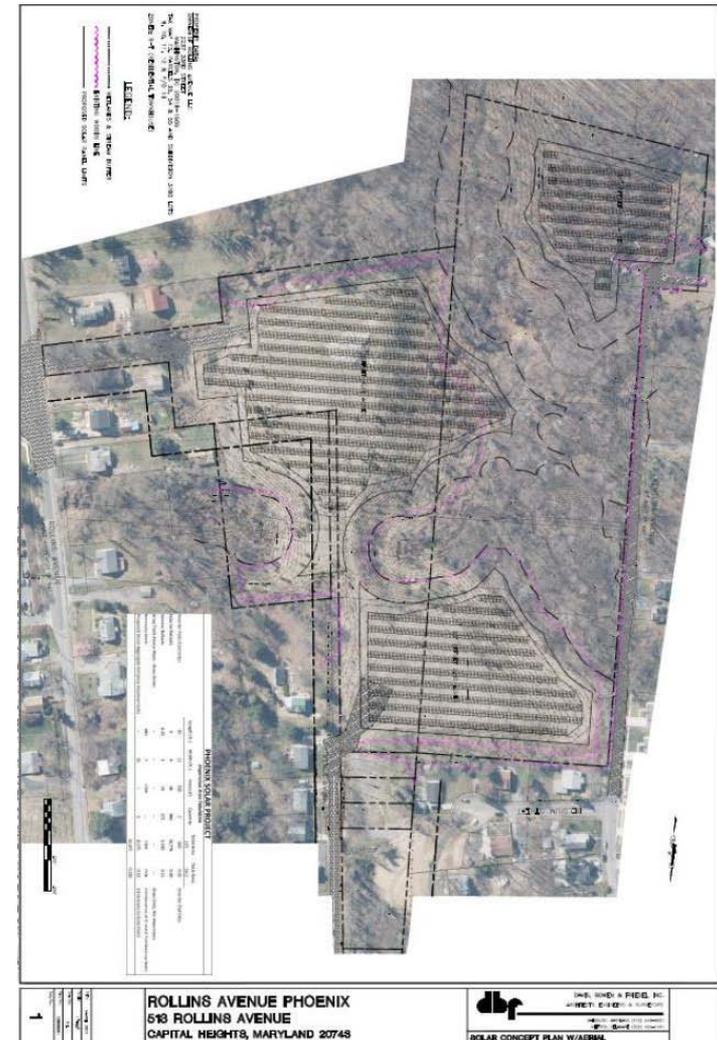
Prince George's & Charles Solar and Natural Gas



Phoenix Solar - 9446



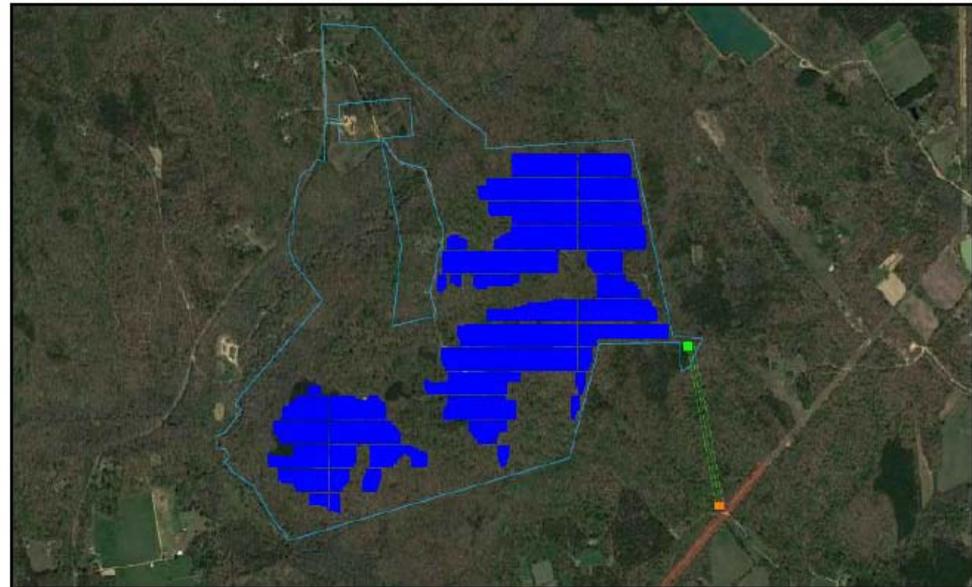
- 2.5 MW Solar PV proposed by SolSystems on 12 acres of reclaimed landfill in Prince George's County
- Site is zoned Residential/Townhouse
- 6,642 panels of fixed-tilt design
- Filed in April 2017; PPRP direct testimony filed 13 September 2017
- PPRP filed letter with amended licensing conditions which applicant accepted on 2 October 2017
- Proposed Order issued 18 October 2017 and will be final on 18 November 2017 unless appealed



Shugart Valley Place Solar - 9464



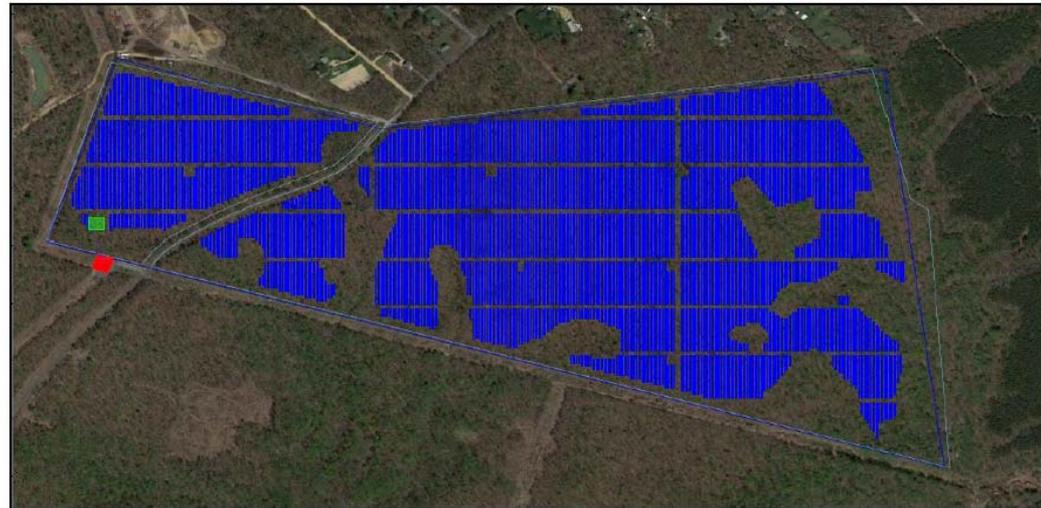
- 32.5 MW Solar PV proposed by MD Solar 1, LLC on 249 acres in Charles County
- Site zoned agricultural conservation; applicant will apply for special exception with Charles Co
- 100,00 – 104,000 panels of fixed-tilt design
- Filed in September 2017; procedural schedule would allow construction to begin Fall 2018



Ripley Road Solar - 9463

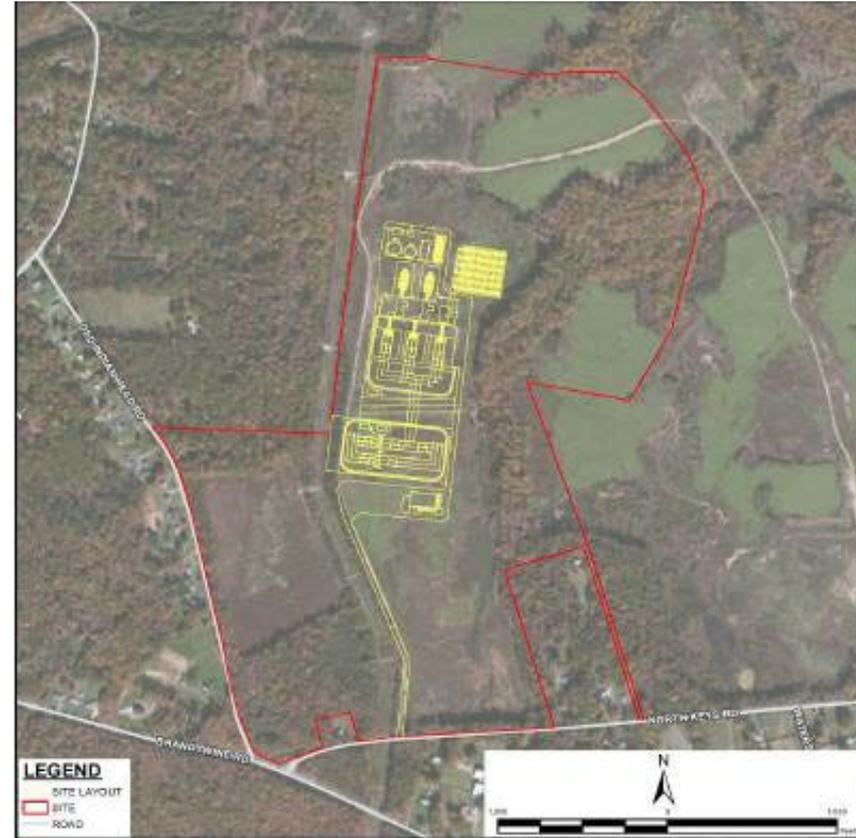


- 27.5 MW Solar PV proposed by MD Solar 2, LLC on 193 acres in Charles County
- 82,000 – 85,000 panels of fixed-tilt design
- Filed in September 2017; procedural schedule would allow construction to begin Fall 2018
- Site is zoned Rural Conservation; applicant will file for special exception with Charles County



Keys Energy Center - 9297

- 735 MW Natural Gas-fired combined-cycle facility under construction in Prince George's County
- Preceded Mattawoman by about a year with CPCN license review
- Project appears to be on track to become operational in spring 2018
- PSEG made changes to design details and submitted revised air dispersion modeling for review; PPRP supported amendments in letter dated 12 September 2017 and responded to Commissioner's request for additional information on 4 October 2017
- Amendments were approved on 11 October 2017



CPV St. Charles - 9437

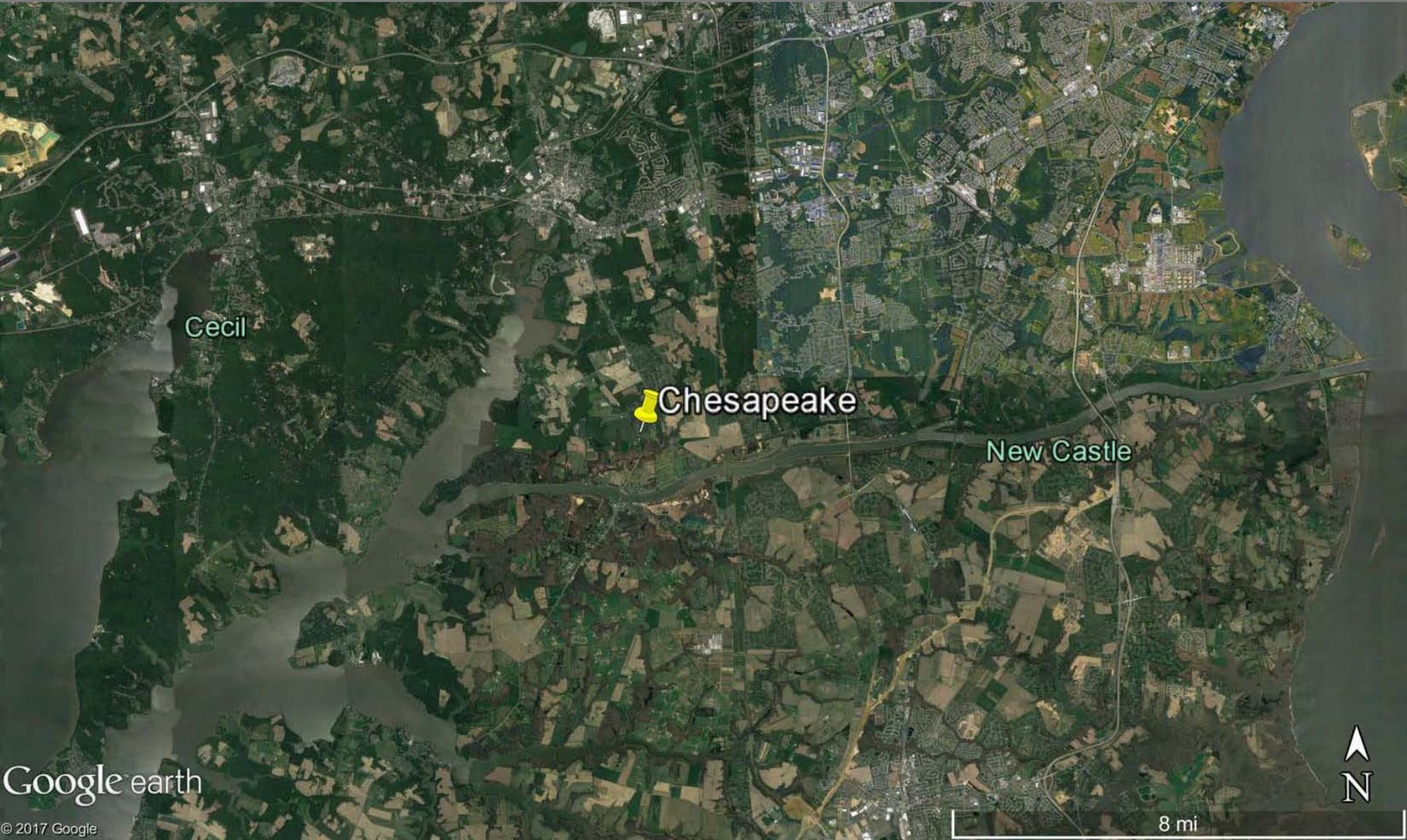
- 725 MW Natural Gas-fired combined-cycle facility in Charles County under construction
- Modification under Case 9437 to increase facility output by 25 MW
- Achieved through technology upgrade, increase of operations, and revision of CPCN conditions to reflect new air permit review requirements
- Modified procedural schedule issued on 15 August 2017 that targets Proposed Order to be issued by 15 January 2018



PREVENTION OF SIGNIFICANT
DETERIORATION (PSD)
MAJOR MODIFICATION TO
CERTIFICATE OF PUBLIC CONVENIENCE
AND NECESSITY (CPCN)

ST. CHARLES ENERGY CENTER
725-MW COMBINED-CYCLE
PROJECT

Cecil County Solar Projects

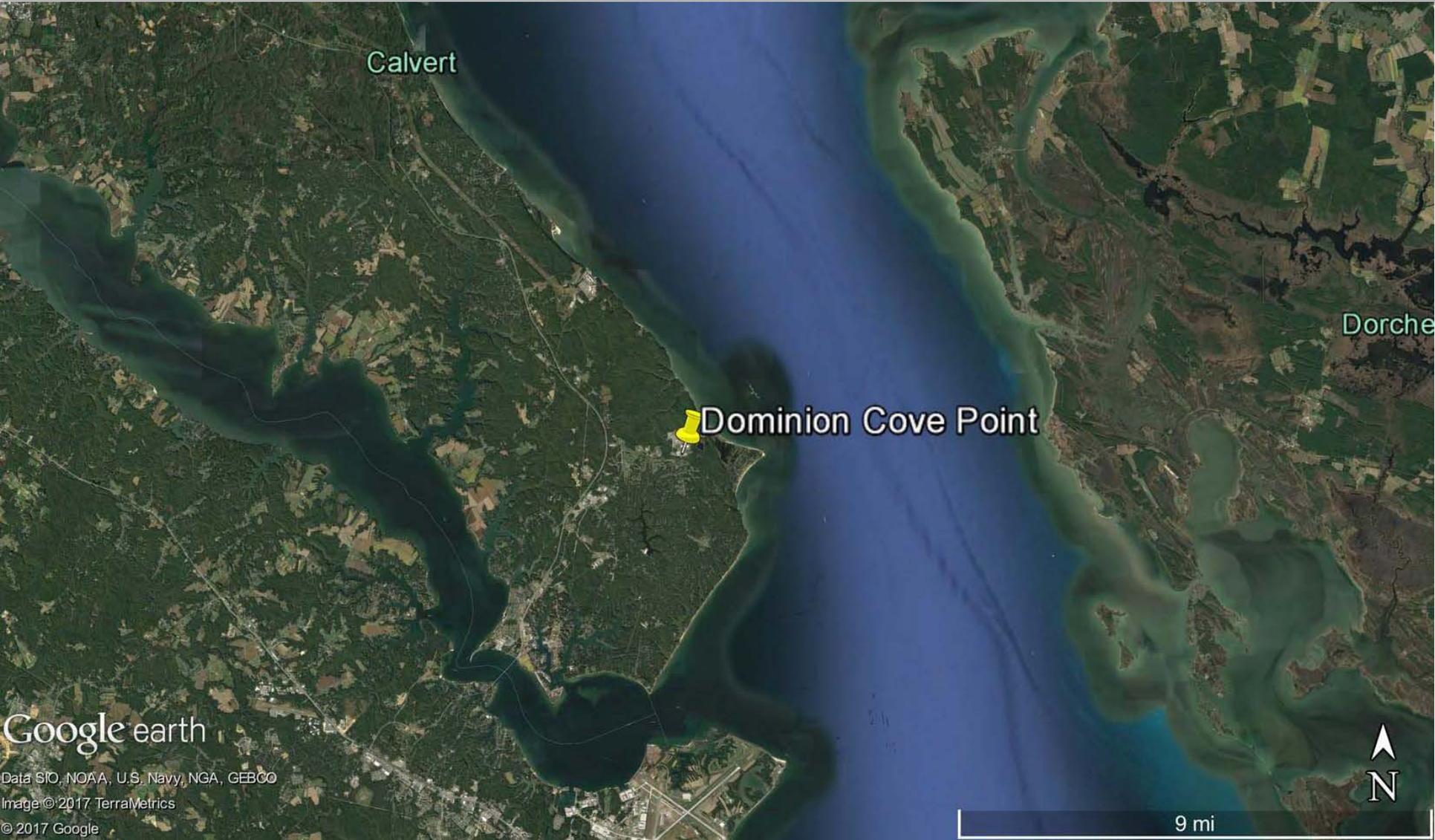


Chesapeake Solar - 9451

- 9.0 MW Solar PV proposed by Chesapeake Solar, LLC on 55 acres in Cecil County
- 40,000 PV mounted on a single axis horizontal tracking system
- Property zoned northern agricultural-residential
- Filed in May 2017; procedural schedule issued 6 June 2017. Proposed Order target date 8 December 2017
- Direct testimony provided on 9 October 2017 by Chesapeake Solar and 20 October by PPRP



Calvert County Natural Gas



Google earth

Data SIO, NOAA, U.S. Navy, NGA, GEBCO

Image © 2017 TerraMetrics

© 2017 Google

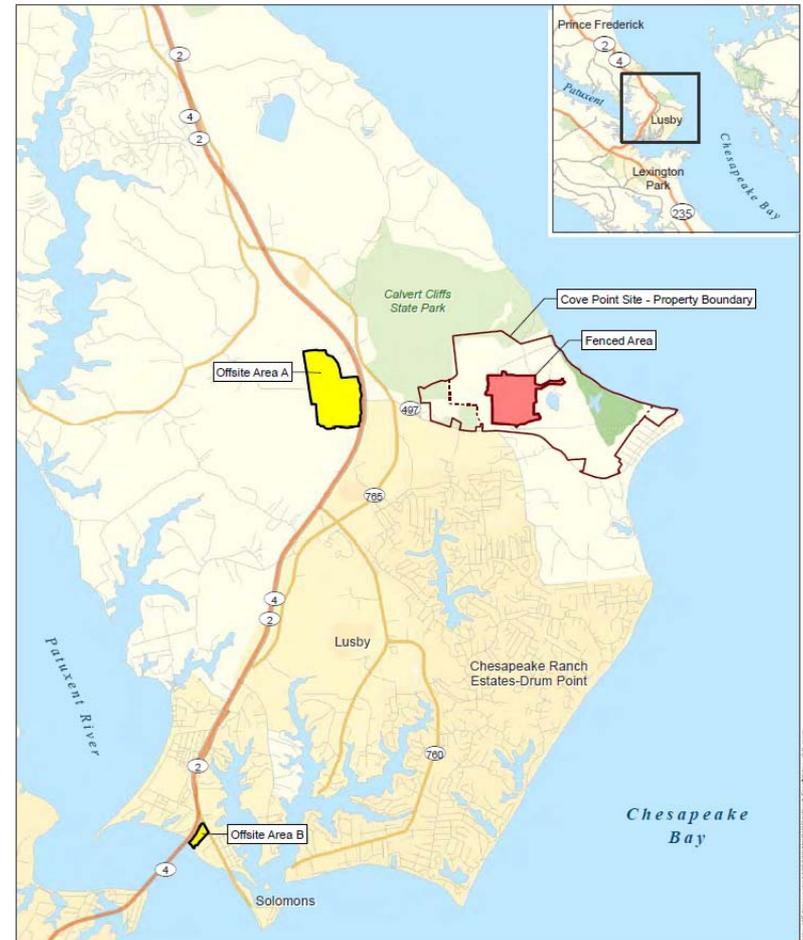
9 mi



Dominion Cove Point - 9318

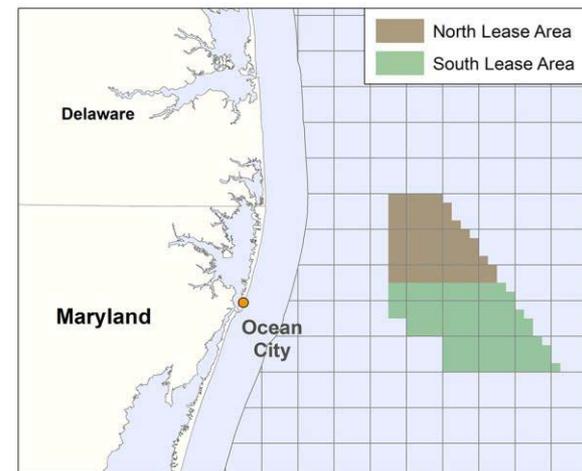
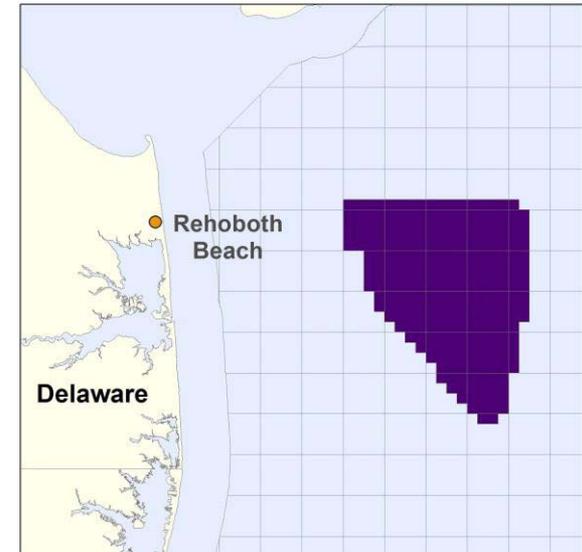


- CPCN granted to DECP LNG, LP on 30 May 2014 to construct 130 MW combined cycle generation station in Calvert County; DECP filed for modification to CPCN on 10 August 2017
- Amendment requests to modify air permit to remove a VOC numeric limit and allow for operating flexibility
- Expedited consideration requested
- Some communities and Sierra Club have expressed opposition
- Public hearings/meetings in October.
- PRRP/MDE filing on October 30 recommended approval with modified/new conditions.
- PSC Admin Hearing on Nov. 15th



Offshore Wind - 9431

- Two projects considered by PSC for ORECs award:
 - US Wind – 248 MW in MD lease area; DE interconnection
 - Skipjack – 120 MW in DE lease area; MD interconnection
- PSC Evidentiary Hearings spanned two weeks in March 2017; Order 88192 issued 11 May 2017 accepting both projects – 368 MW of OSW; on 25 May 2017 US Wind submitted a notice of acceptance of conditions
- PPRP's role uncertain; only Skipjack's export cable would cross MD State waters and interconnect with substation north of Ocean City
- PPRP could also participate in Federal reviews of the projects as a cooperating agency
- Both projects propose using Sparrows Point, Baltimore for turbine staging and construction



PJM Queue – Power Plants



Fuel Type: Solar Status: Under Study State: Maryland Reset

Showing 1 - 15 of 33

A B C D E F G H I J K L M N O P Q R S T U V W X Y Z																
W1 W2 W3 W4 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50																
Queue	AQ	Queue Date	PJM Substation	MM	RW In Sec	MWC	MPE	Stat	Fees	Imp	Fac	SA/ WSPM	CSA	St	Projected In Service	Fuel
AA1-001		9.23.2014	Jarftown-East New Market 69kV	20		11.8	10	qs	●	●	○			MD	2016 Q4	●
AA1-140		10.31.2014	Woroster 25kV	20		7.6	10	qs	●	●	○			MD	2018 Q2	●
AA1-141		10.31.2014	Kennedy 25kV	15		5.7	15	qs	●	●	○			MD	2016 Q4	●
AB1-123		10.29.2015	Shawater 34.5kV	10.4		7	10.4	qs	●	●	●			MD	2017 Q3	●
AB1-124		10.29.2015	Monocacy-Cornell 34.5kV	20		7.6	10	qs	●	●	●			MD	2017 Q3	●
AB1-140		10.30.2015	Church-eye Mills 138 kV I	19.8		13.5	19.8	qs	●	●	○			MD	2017 Q4	●
AB1-142		10.30.2015	Church-eye Mills 138 kV II	19.8		13.5	19.8	qs	●	●	○			MD	2017 Q4	●
AB1-162		10.30.2015	Price 25kV	16.7		6.34	16.7	qs	●	●	○			MD	2017 Q3	●
AB1-176		10.30.2015	Price 25kV II	9		3.4	9	qs	●	●	○			MD	2016 Q4	●
AB2-032		2.11.2016	Church-Price 69kV III	20		13.6	10	qs	●	●				MD	2017 Q4	●
AB2-036		2.26.2016	Church-Steelie 138kV	102		58.7	102	qs	●	●				MD	2018 Q4	●
AB2-037		2.26.2016	Kennedy-Steelie 230kV	212.5		80.75	212.5	qs	●	●				MD	2019 Q4	●
AB2-056		3.21.2016	Colera 34.5kV	10		3.8	10	qs	●	●				MD	2018 Q4	●
AB2-063		3.30.2016	Price 69kV	20		7.6	10	qs	●	●				MD	2018 Q4	●
AB2-064		4.15.2016	Costen 25kV	10		3.8	10	qs	●	●				MD	2018 Q4	●

View | 15

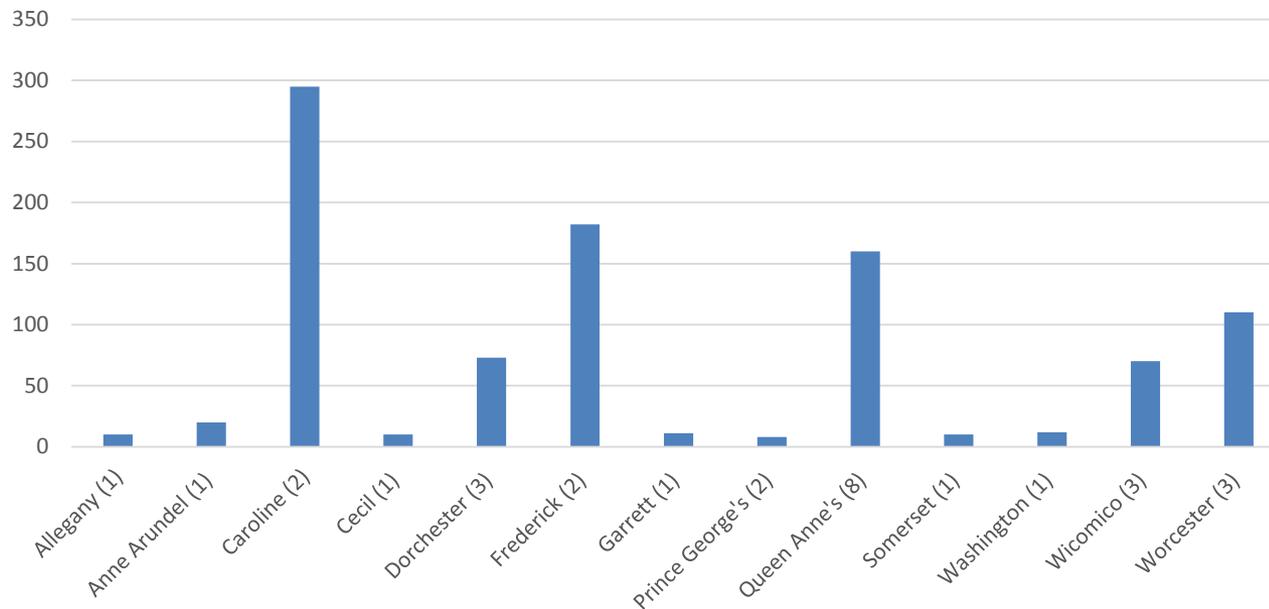
Page 1/4 [Next]



Possible Solar Projects – a snapshot



Solar in PJM Queue not yet in CPCN Pipeline (MW)
as of October 2017



More Anticipated Projects



- CP Crane – switch to natural gas
- Rock Springs Oil Fired Backup
- Transource Interstate Transmission Line*
- Key's Crossing Reliability Initiative (Transmission Line)*

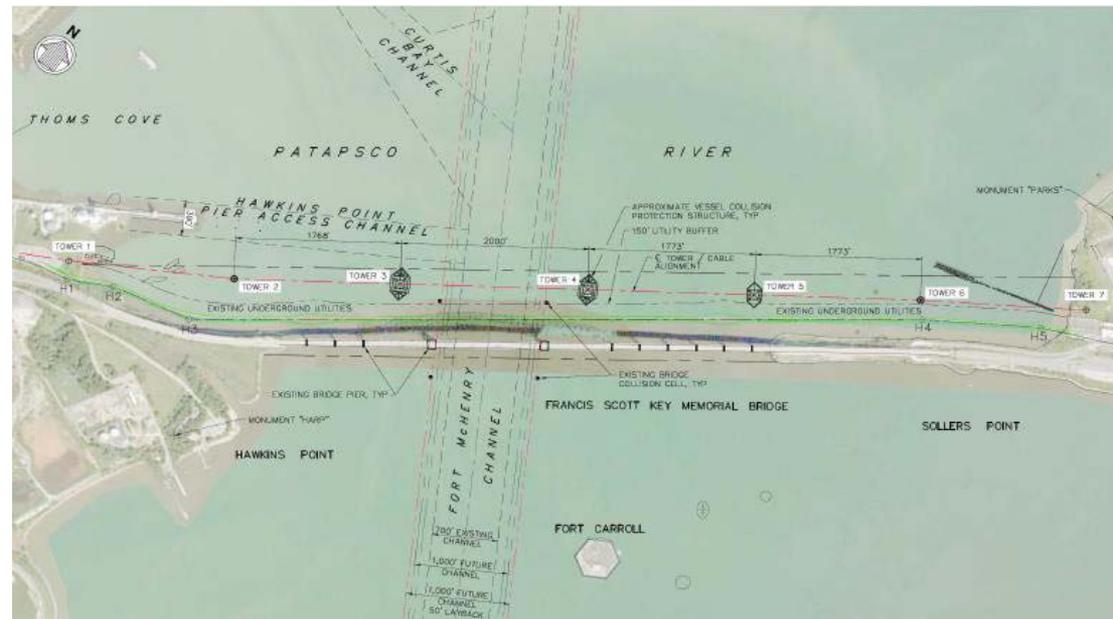


*Additional slides on the two Transmission Lines follow this presentation.

Questions?

Baltimore Harbor Crossing

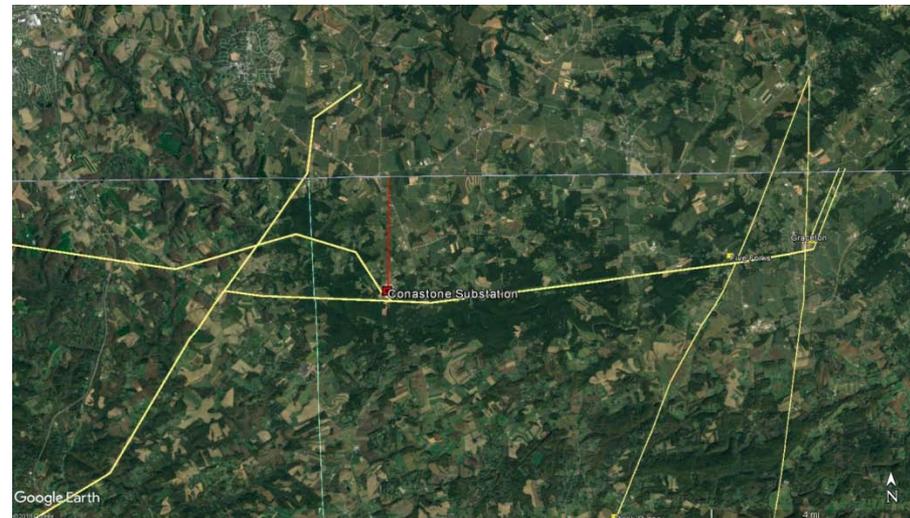
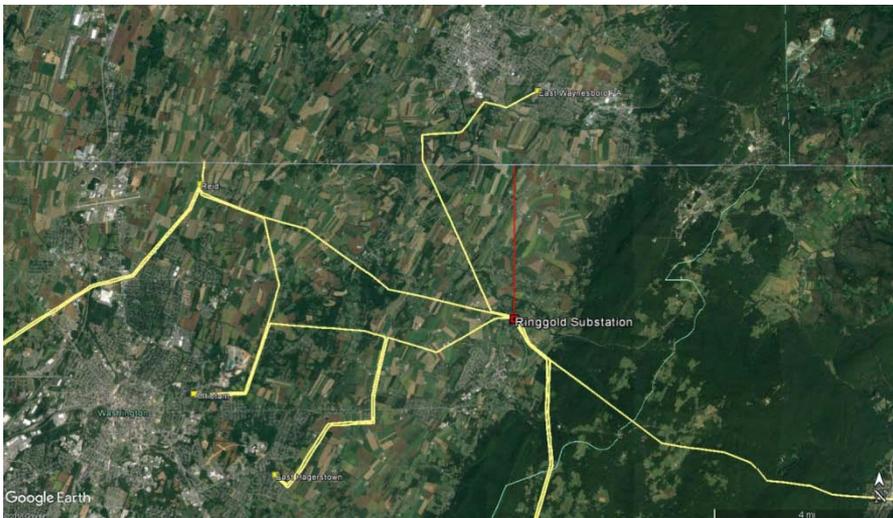
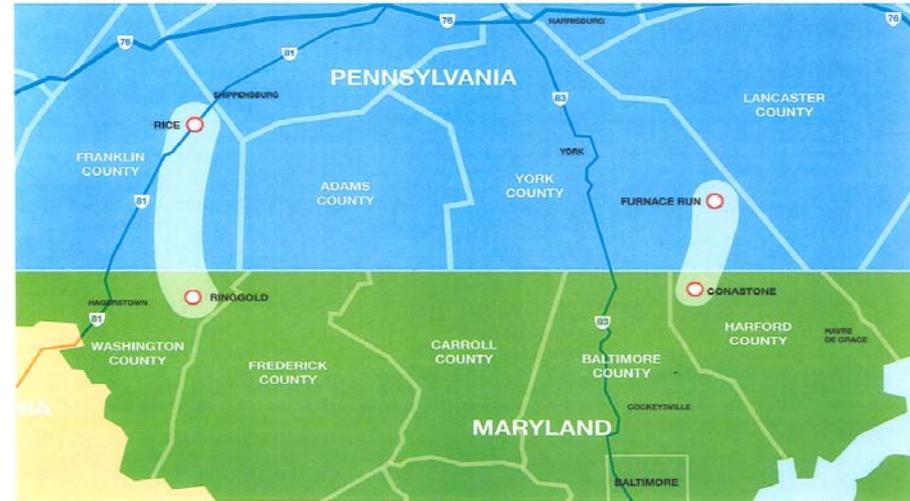
- BGE to replace existing 230 kV lines beneath Baltimore Harbor with overhead T-line
- Existing lines are near end of life and direct replacement infeasible
- PRRP continues pre-application discussions with BGE on identifying resource issues and alternatives
- Project planning must consider USACE's "50-Foot Project," which is evaluating widening existing deep-draft channels
- CPCN filing is anticipated in early 2018
- BGE has already suggested creative T-line tower designs



Transource – Independence Energy Connection Project



- Market Efficiency Project through PJM's RTEP process
- Two 230-kV T-lines interconnecting PA and MD substations – Washington and Harford Co's
- CPCN filing anticipated late 2017
- PPRP continues pre-application discussions with Transource regarding route selection in MD

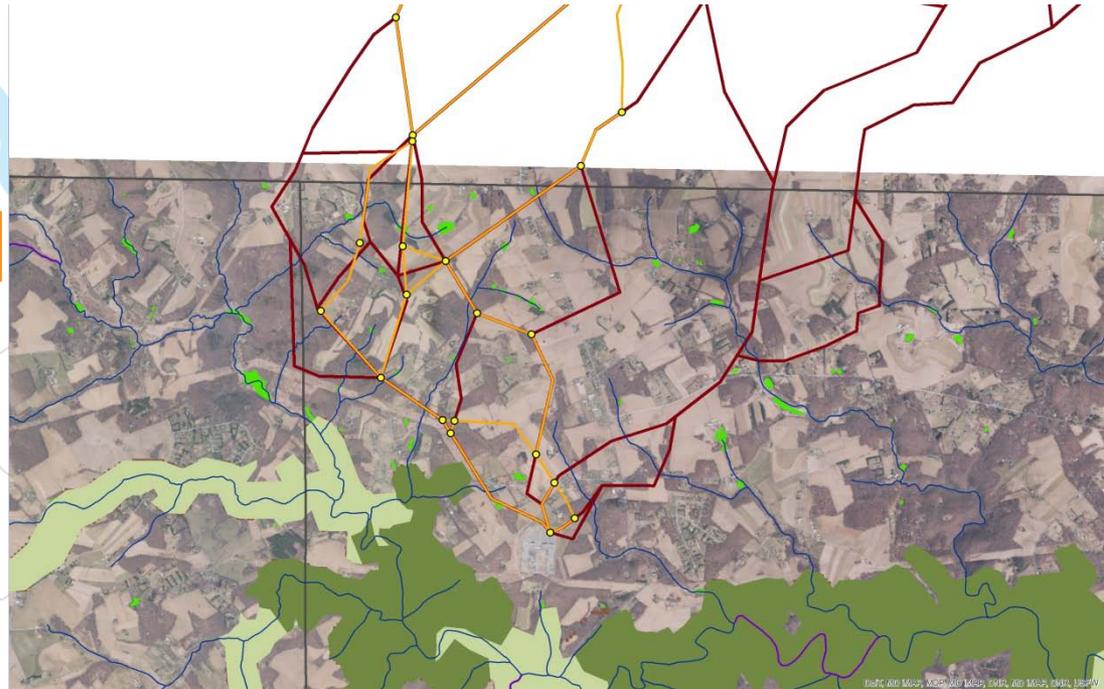
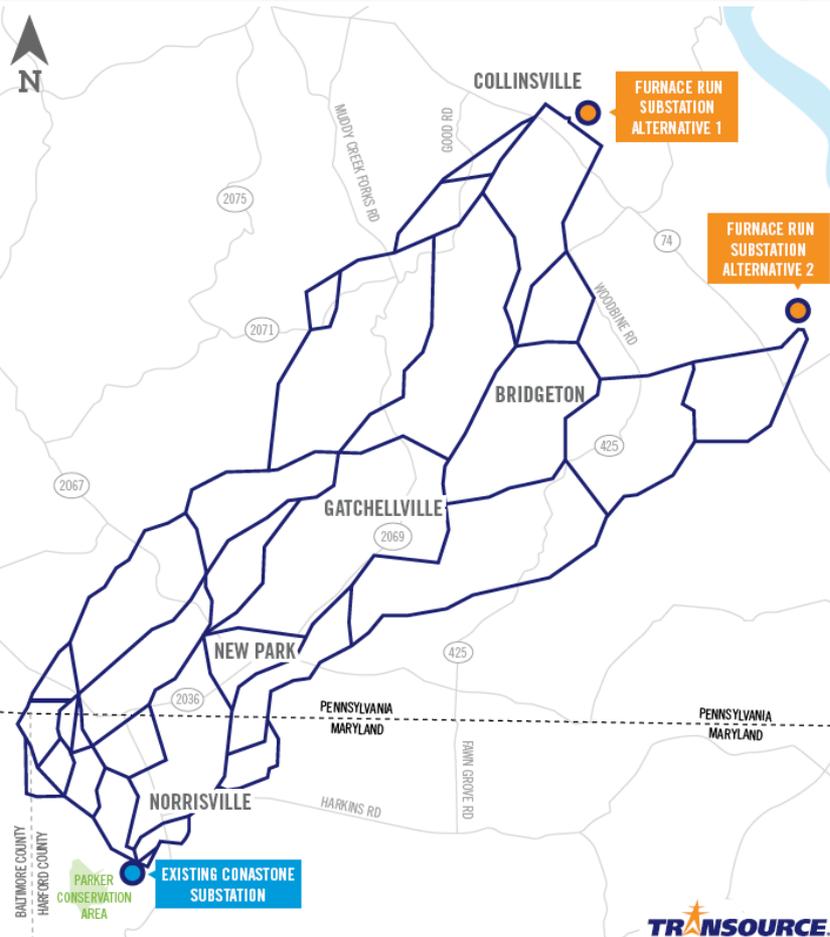


Pre-App Schedule



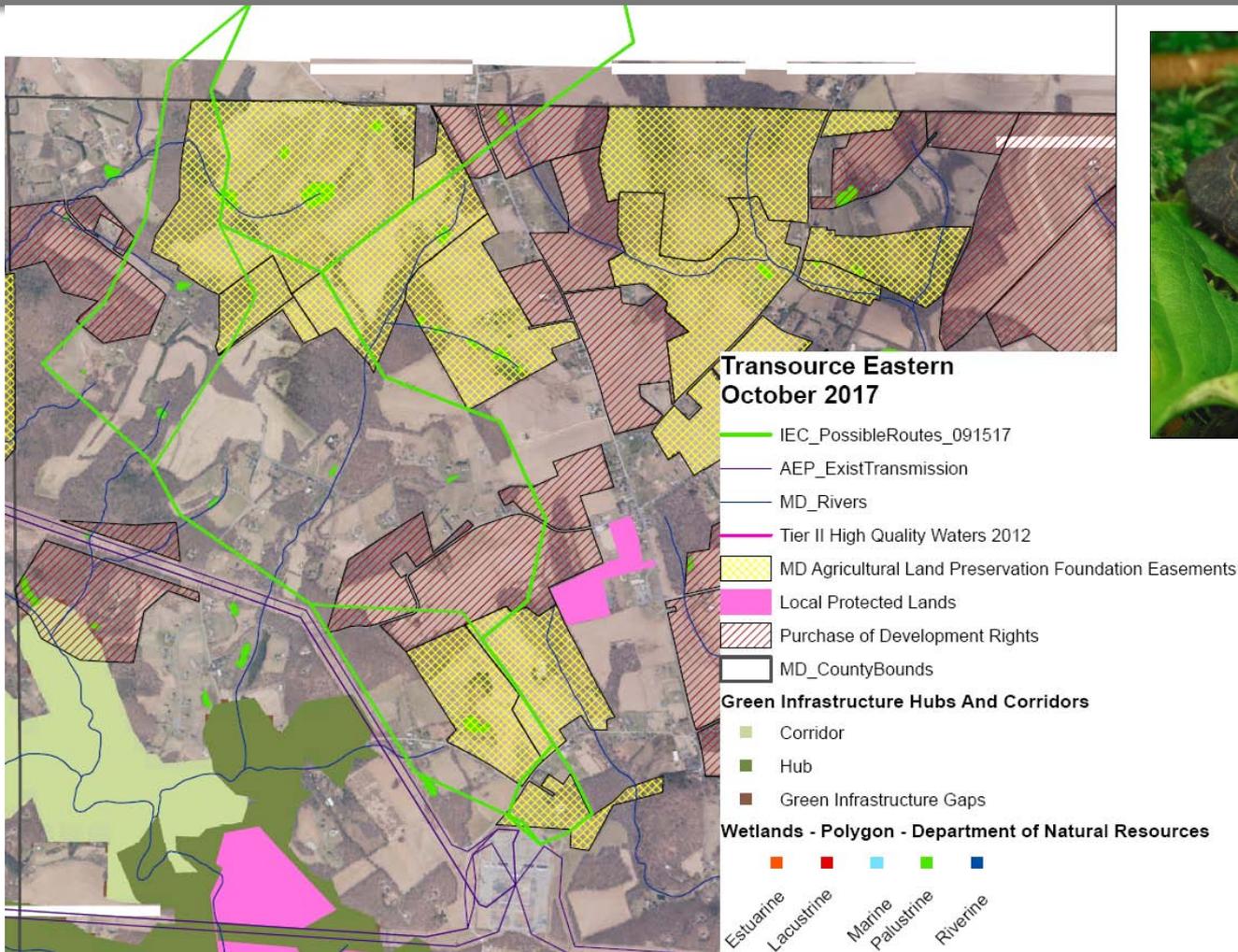
- January 12th – Initial meeting with Transource to discuss Independence Energy Connection (IEC)
- March 29th & July 26th – presentations to Joint Evaluation (MDE/USACE Wetlands)
- June 7th & 12th – First round of public meetings
- August 7th & 9th – Second round of public meetings
- October 16th – Transource announces proposed routes
- October 24th – Tour of eastern segment alternatives
- November ? – Tour of western segment alternatives
- December ? – Transource to file application for CPCN

Eastern Segment in Harford County

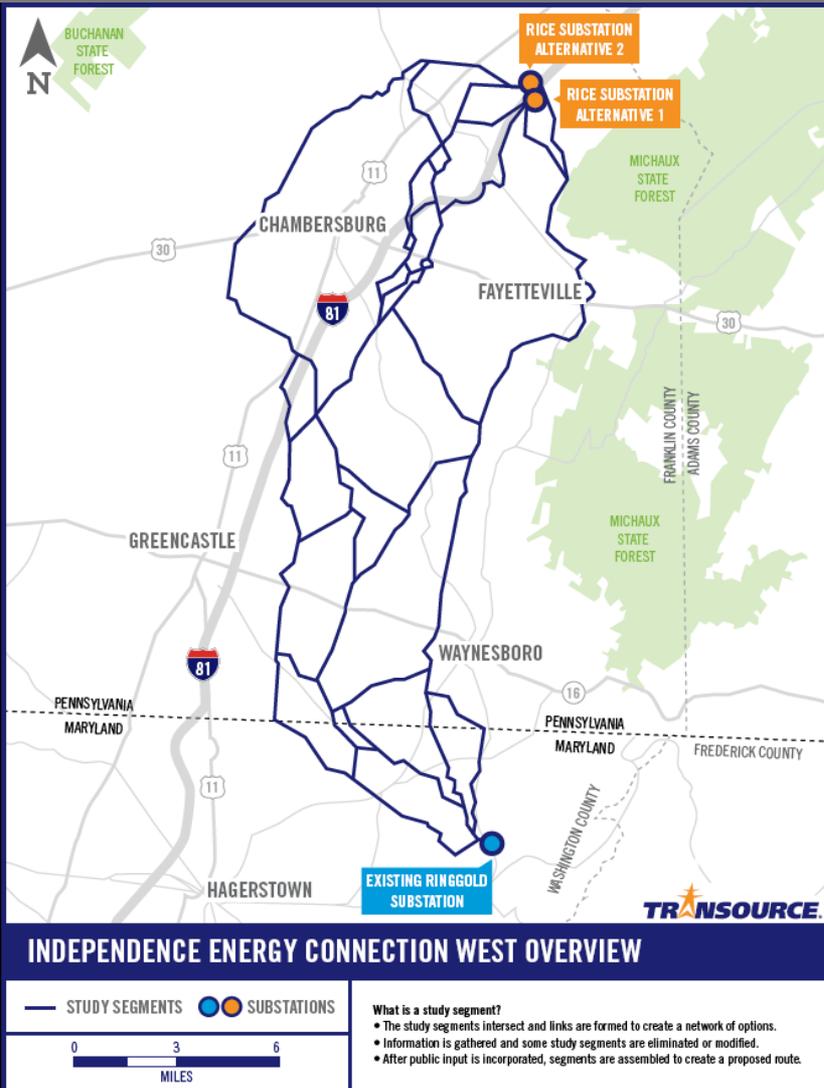


- Red lines – alternatives considered but dropped
- Yellow lines – alternatives refined and carried forward for further evaluation
- Deer Creek watershed with green wetlands
- Green Infrastructure – corridors and hubs

Eastern Alternatives Site Tour

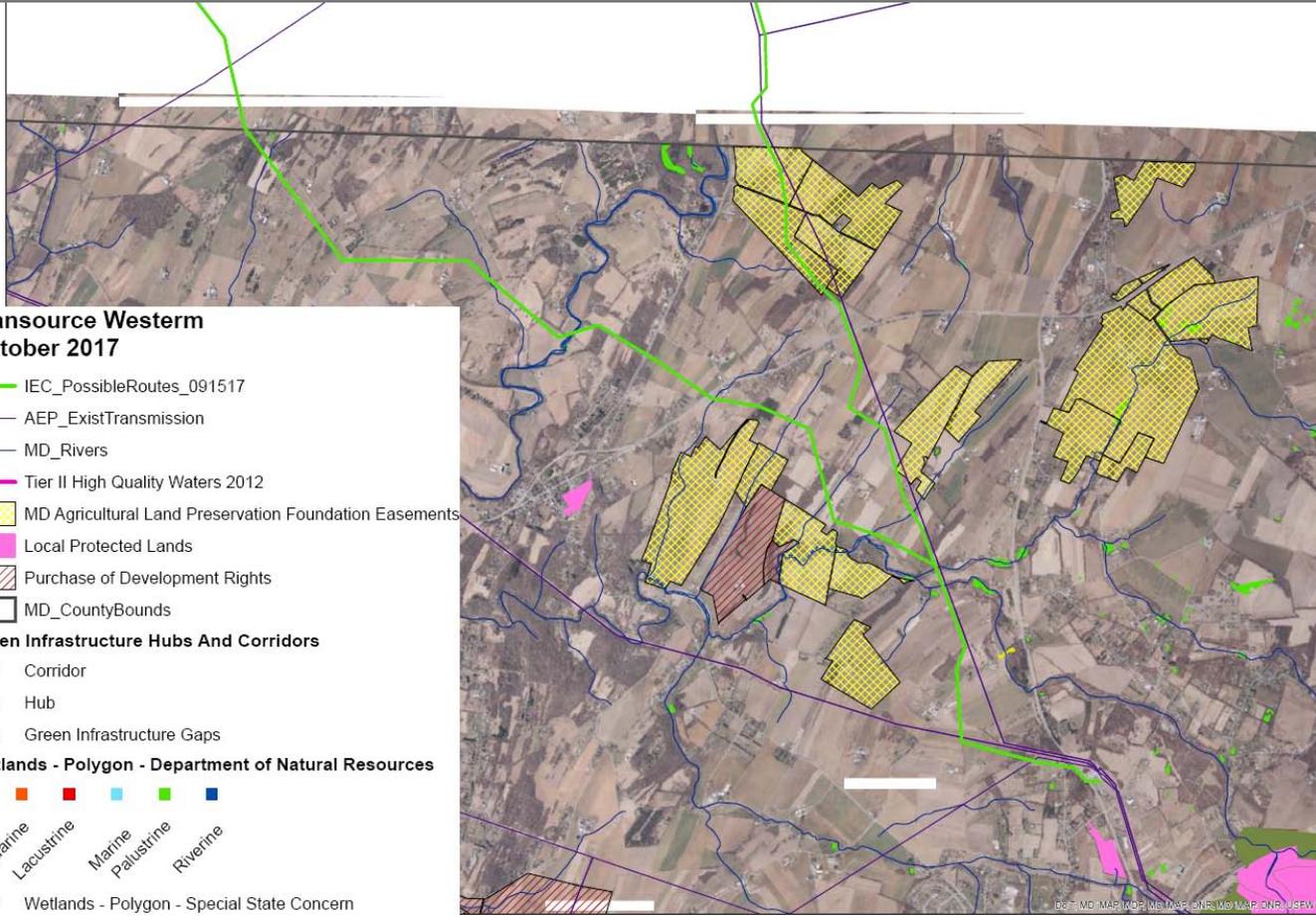


Western Segment in Washington County



- Red lines – alternatives considered but dropped
- Yellow lines – alternatives refined and carried forward for further evaluation
- Antietam watershed with green wetlands
- Green Infrastructure – corridors and hubs

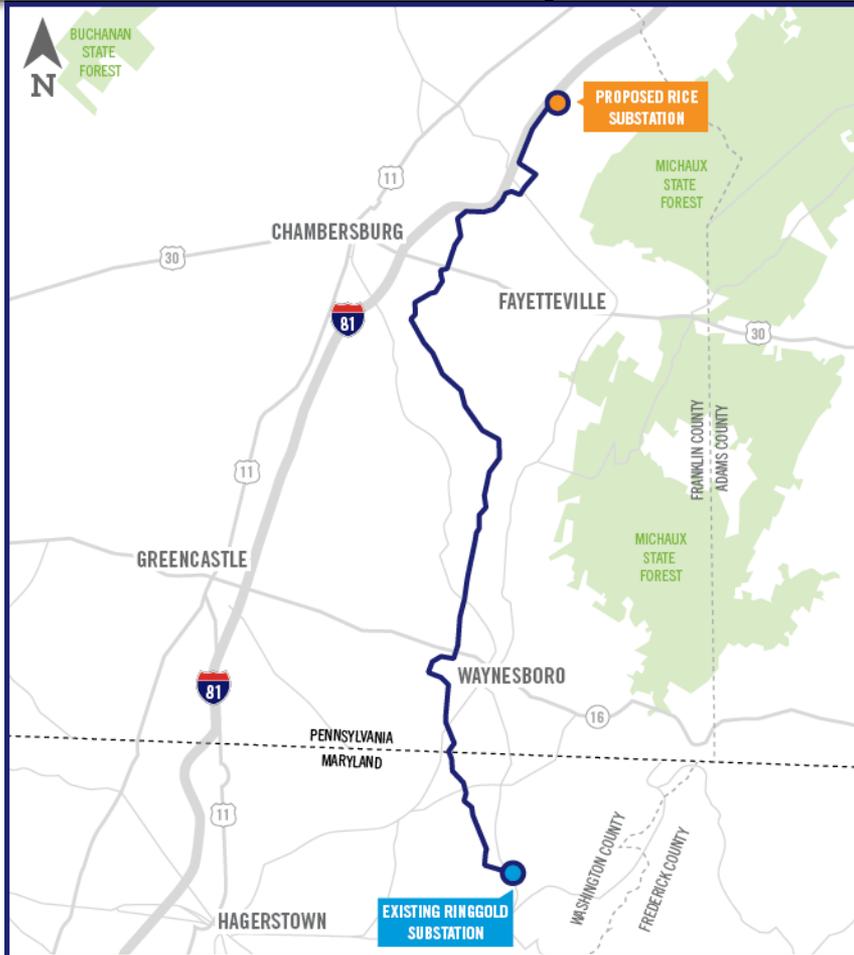
Western Alternatives Site Tour



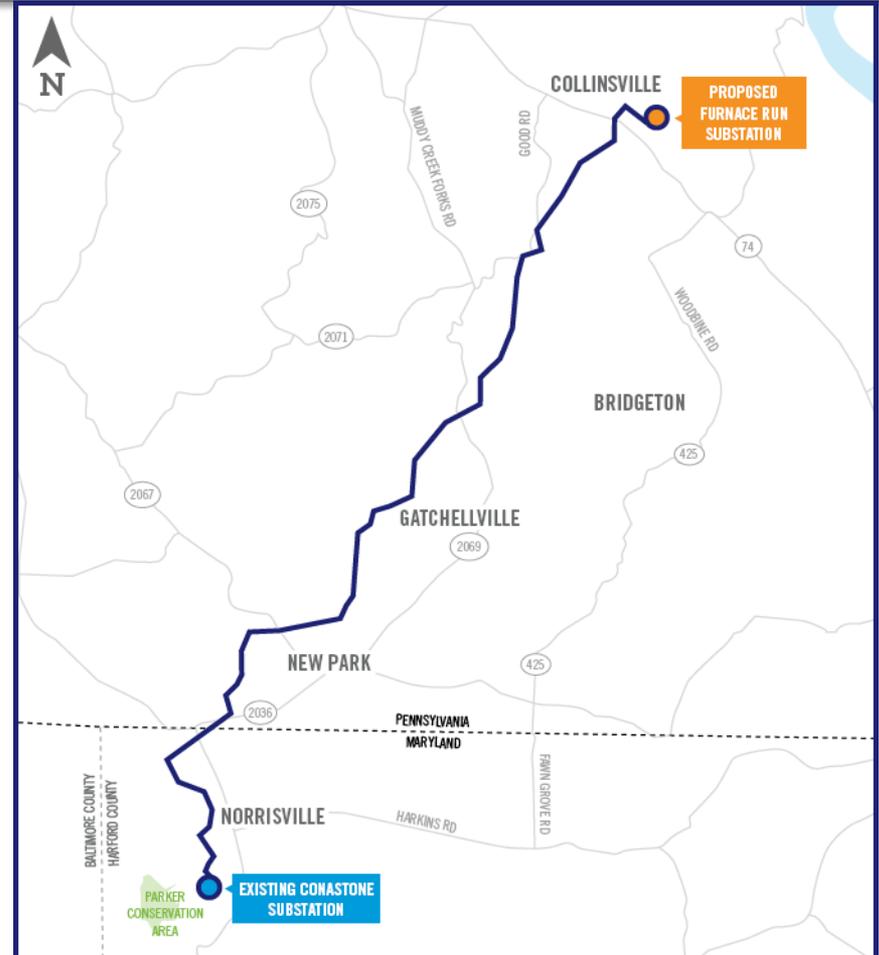
- Transource Western
October 2017**
- IEC_PossibleRoutes_091517
 - AEP_ExistTransmission
 - MD_Rivers
 - Tier II High Quality Waters 2012
 - MD Agricultural Land Preservation Foundation Easements
 - Local Protected Lands
 - Purchase of Development Rights
 - MD_CountyBounds
- Green Infrastructure Hubs And Corridors**
- Corridor
 - Hub
 - Green Infrastructure Gaps
- Wetlands - Polygon - Department of Natural Resources**
- Estuarine
 - Lacustrine
 - Marine
 - Palustrine
 - Riverine
- Wetlands - Polygon - Special State Concern

DC: MD MAP, WPA, USFWS, DNR, ONE, MD MAP, DNR, USFWS

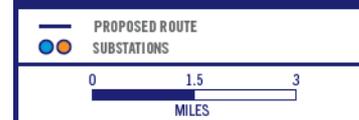
Proposed Routes as of October 16, 2017



INDEPENDENCE ENERGY CONNECTION WEST OVERVIEW



INDEPENDENCE ENERGY CONNECTION EAST OVERVIEW



Questions?