

JEA
GOVERNMENT AFFAIRS COMMITTEE AGENDA

DATE: May 6, 2016
TIME: 9:00 AM
PLACE: 21 W. Church Street
8th Floor Conference Room

Committee Members will meet on the 8th Floor
Other Board Members may join via conference call
by dialing 904-665-7100 - No password is needed.

	Responsible Person	Action (A) Info (I)
I. OPENING CONSIDERATIONS	Alan Howard	
A. Call to Order		
B. Adoption of Agenda		A
II. NEW BUSINESS		
A. Review and Approval of the Government Affairs Committee Charter	Paul McElroy	A
B. Review of Current Litigation	Jody Brooks	I
C. JEA Government Relations Local, State and Federal Update	Mike Hightower/ Nancy Kilgo	I
D. Other New Business	Paul McElroy	I
E. Announcements	Alan Howard	I
1. Schedule Next Meeting as Appropriate		
F. Adjournment		



Building Community

AGENDA ITEM SUMMARY

April 29, 2016

SUBJECT:	REVIEW AND APPROVAL OF THE GOVERNMENT AFFAIRS COMMITTEE CHARTER
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Purpose:	<input type="checkbox"/> Information Only	<input checked="" type="checkbox"/> Action Required	<input type="checkbox"/> Advice/Direction
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Issue: The JEA Board Chair created a new Government Affairs Committee in 2016 to review various policy and strategy issues relating to government affairs at the local, state and federal levels. A draft Committee Charter is presented for consideration by the Government Affairs Committee.

Significance: The first Government Affairs Committee will be held on May 6, 2016. The draft Charter will be considered at the initial committee meeting.

Effect: The Charter will guide the scope and work of the Committee going forward.

Cost or Benefit: Review of developing policy, regulatory and legislative issues at various levels of government will provide insight to the Committee and Board, of potential major cost and/or operational impacts.

Recommended Board action: Staff requests the Committee to review, modify and approve the Government Relations Committee Charter to be considered by the full Board of Directors at the May 17, 2016 meeting.

For additional information, contact: Mike Hightower

Submitted by: PEM/MH/NKV

MISSION Energizing our community through high-value energy and water solutions.	VISION JEA is a premier service provider, valued asset and vital partner in advancing our community.	VALUES <ul style="list-style-type: none">• Safety• Service• Growth²• Accountability• Integrity
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Commitments to Action

- 1 Earn Customer Loyalty**
- 2 Deliver Business Excellence**
- 3 Develop an Unbeatable Team**

JEA Board of Directors Government Affairs Committee Charter

Role of the Government Affairs Committee

The Government Affairs Committee is appointed by, and is a standing Committee of, the Board of Directors of JEA. The Committee's primary function is to assist the Board in fulfilling its oversight responsibilities by reviewing JEA's government affairs involvement, strategies and major issues at the local/regional, state and federal levels. In conjunction with its primary function, it is the responsibility of the Committee to provide an open avenue of communication between the Board and Management. The Government Affairs Committee shall review and approve relevant agenda items, provide periodic reports and make recommendations to the JEA Board for final approval. It will keep the Board apprised of its activities.

Membership

The Committee shall consist of three Board members, appointed annually by the Board Chair. The Board Chair shall appoint one of the Committee members as Chairperson. The Chief Public Affairs Officer shall have direct access to Government Affairs Committee members.

Meetings

The Committee will meet on an as needed basis. The Committee may invite members of Management and/or others to attend meetings and provide pertinent information, as necessary. Meetings shall be subject to open meetings and public information laws.

Responsibilities

The Committee shall:

- Review summary reports by JEA staff on legislation and regulations, proposed, pending and adopted, at the local/regional, state and federal levels that may have a direct or indirect impact to JEA
- Review JEA staff participation in government affairs stakeholder communications and outreach
- Ensure JEA maintains comprehensive government affairs strategies for all appropriate levels of government
- Report Committee summaries, actions and recommendations to the Board
- Review legal matters as appropriate which may include outstanding litigation and related legal representation
- Annually review and approve the Committee's Charter, updating as needed



Building Community

AGENDA ITEM SUMMARY

April 29, 2016

SUBJECT:	JEA GOVERNMENT RELATIONS LOCAL, STATE AND FEDERAL UPDATE
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Purpose:	<input checked="" type="checkbox"/> Information Only	<input type="checkbox"/> Action Required	<input checked="" type="checkbox"/> Advice/Direction
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Issue: JEA Government Relations closely monitors legislative action and other policy matters which may directly or indirectly impact JEA's business.

Significance: Legislative actions and policy decisions can potentially have a far-reaching influence on the day-to-day operations and long-term sustainability of JEA's core business.

Effect: JEA customers, employees and key stakeholders.

Cost or Benefit: Significant regulatory actions could result in substantial costs or benefits to JEA and its customers.

Recommended Board action: This item is provided for information only. Staff requests that the Government Affairs Committee provide advice and direction as necessary.

For additional information, contact: Nancy Kilgo 665-3439

Submitted by: PEM/MRH/NKV

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JEA Board Government Affairs Committee Local Update

Local Legislative Update

- **JEA and COJ Interlocal Agreement and Charter Revisions** (Ordinance 2015-764)
 - Approved by City Council March 8, 2016 and by the JEA Board March 15, 2016.
 - Resets millage rates to achieve minimum contribution level.
 - Increases JEA's contribution by 1% each year or the amount yielded by the millage calculation, if higher.
 - Provides for a \$15,000,000 one-time contribution by JEA with a matching \$15,000,000 contribution by COJ over a five year period to fund qualified water and sewer projects.
 - Facilitates the transfer of BMAP credits to COJ to help meet COJ's nitrogen reduction goals.
 - Modifies restrictions governing customer assistance programs.
 - Addresses real property tax treatment for new or additional utility systems.
- **Office of General Counsel Employee Cap Increase** (Proposed Ordinance 2016-258)
 - Provides for an attorney and a paralegal/assistant in the Office of General Counsel for JEA legal representation and administrative needs.
- **Pension Liability Discretionary Sales Surtax** (Proposed Ordinance 2016-300)
 - Provides for a voter referendum to extend the ½ cent discretionary sales surtax to fund underfunded defined benefit plans including the General Employees Pension Plan.

Local Government Affairs Support

- Special Committee on the JEA Agreement
- Continued participation in the Water and Sewer Review Subcommittee. Subcommittee is a collaborative effort between JEA and COJ with the task of recommending the most efficient use of available funds for water and sewer infrastructure expansion.
- Discussion and outreach regarding oversight and a Memorandum of Understanding between the Office of Inspector General and JEA.
- JEA Solar Policy-Deferred.
- Provide support and information to Chamber of Commerce regarding economic development opportunities.

IEA Board Government Affairs Committee State Update

2016 Legislative Session Update

Key Bills of Interest:

- Public Records/Utility Agencies Information Technology Security (Utility Cybersecurity) (HB 1025/SB 776)
- Discretionary Sales Surtax (HB 1297/SB 1652) (Jacksonville Pension)
- Utility Projects (HB 347/SB 324) (Cost Containment Bond Financing)
- Environmental Resources (SB 552/HB 7005) (Omnibus bill on Water Policy)
- Carbon Dioxide Emissions from Existing Stationary Sources (HB 639/SB 838) (Clean Power Plan)

Other Bills of Interest:

- Pollution Discharge Removal and Prevention (SB 100/HB 697)
- Public Records/Public Agency Contract for Services (HB 273/SB 390)
- Municipal Power Regulation (HB 579/SB 840) – (Florida Municipal Power Regulation (FMPA))
- Renewable Energy Source Devices (HB 193/SB 170 and HB 195/SB 172) (Additional tax exemptions)
- Gainesville Regional Utilities (HB 1355) – (Local bill on governance)

Scan Issues:

- Water Policy related - reclaimed water/reuse, water & land conservation funding
- Solar constitutional amendments (Devices tax exemption & Rights of Electricity Consumers Regarding Solar Energy Choice)
- Results of 2016 Elections

IEA Board Government Affairs Committee Federal Update

Key Policy Matters

- EPA's Final Rule to Regulate Carbon Dioxide Emissions from Existing Fossil Fuel-Fired Power Plants (CPP)
- Regulation of Coal Combustion Residuals from Power Plants
- Solar Distributed Generation
- Municipal Bonds and Public Power
- Cybersecurity and Electric Sector
- Physical Security and the Electric Sector

2016 Legislative Session Review

2016 Legislative Session – Key Bills of Interest

1. Public Records/Utility Agencies Information Technology Security (Utility Cybersecurity) (HB 1025/SB 776)
 - Passed
 - Expands the public records exemption for local government utility agencies for information related to security of information technology systems and industrial control technology systems.
 - Effective Date: March 24, 2016

2. Discretionary Sales Surtax (HB 1297/SB 1652) (Jacksonville Pension)
 - Passed
 - Authorizes a county to levy a pension liability surtax by ordinance if certain conditions are met; prescribes the form of ballot statement; specifies the manner in which a local government may use the surtax proceeds; etc.
 - Effective Date: July 1, 2016

3. Utility Projects (HB 347/SB 324) (Cost Containment Bond Financing)
 - Passed
 - Authorizes certain local government entities to finance the costs of defined water and sewer utility projects by issuing utility cost containment bonds upon application by local agencies (governments). This type of financing mechanism will be available for use by JEA and the City under specific conditions.
 - Effective Date: July 1, 2016

4. Environmental Resources (SB 552/HB 7005) (Omnibus bill on Water Policy)
 - Passed
 - Requires the Department of Environmental Protection to publish, update, and maintain a database of conservation lands; authorizes certain water management districts to designate and implement pilot projects; prohibits water management districts from modifying permitted allocation amounts under certain circumstances; creates the "Florida Springs and Aquifer Protection Act", etc. Provides approach for major water project funding through water management districts and state government.
 - Effective Date: July 1, 2016

5. Carbon Dioxide Emissions from Existing Stationary Sources (HB 639/SB 838) (Clean Power Plan)
 - Failed
 - Would have restricted the state's ability to develop a state plan in response to the Clean Power Plan
 - The bill died in the committee process

Other bills of interest:

6. Pollution Discharge Removal and Prevention (SB 100/HB 697)
 - Passed
 - Exempts non-program petroleum-contaminated site from the application of risk-based corrective action principles under certain circumstances; improves use of long-term natural attenuation where site conditions warrant; revises how cleanup target levels are applied where surface waters are exposed to contaminated groundwater; provides additional contamination cleanup criteria for brownfield sites and brownfield areas; revises the eligibility requirements of the Abandoned Tank Restoration Program, among other changes.
 - Effective Date: July 1, 2016

7. Public Records/Public Agency Contract for Services (HB 273/SB 390)
 - Passed
 - Requires public agency contracts for services to include a statement directing the contractor to the public agency's custodian of public records for questions related to public records regarding the contract and specifies form and content of statement including contact information for the custodian of records; provides for records retention or records transfer requirements for the contractor relating to public agency contracts; directs that requests to inspect or copy public records be made directly to the public agency; and provides for enforcement, actions or penalties to the contractor for non-compliance.
 - Effective Date: March 8, 2016 for contracts entered or amended after July 1, 2016

8. Municipal Power Regulation (HB 579/SB 840) – (Florida Municipal Power Regulation (FMPA))
 - Failed
 - Would have required further oversight and reporting requirements for FMPA and changes in its board governance structure
 - Had possible implications for further oversight of municipal utilities in the future
 - The bill died in the committee process

9. Renewable Energy Source Devices (HB 193/SB 170 and HB 195/SB 172) (Additional tax exemptions)
 - Passed
 - Seeks to lower the cost of renewable energy projects for businesses who install solar panels on their buildings.
 - HB 193 is a joint resolution proposing an amendment to the State Constitution extending the ad valorem tax exemption for tangible personal property for renewable energy source devices to commercial and industrial property owners (installed only by end-users).
 - The amendment question will be placed on the August 30 primary election ballot for a vote of the electorate statewide.
 - HB 195 provides the enabling legislation if the voters approve the Constitutional amendment.
 - Effective Date: January 1, 2018, if Constitutional amendment passes

10. Gainesville Regional Utilities (HB 1355) – (Local bill on governance)

- Passed in legislature, vetoed by the Governor
- Would have required the City of Gainesville to conduct a referendum for the creation of a Gainesville Regional Utilities Authority. Referendum would have asked citizens whether to approve creation of a utility authority and outlined its governance structure to have members appointed by the City Commission with proportional representation on the Authority Board by outside city-limits customers. The authority would manage, operate, control and have broad authority with respect to the utilities owned by the City including establishing rates, fees, assessments, charges, rules, regulations and policies governing sale and use of services. Assets would continue to be titled to the City.

Key Federal Policy Matters

EPA's Final Rule to Regulate Carbon Dioxide Emissions from Existing Fossil Fuel-Fired Power Plants

Summary

On August 3, 2015, the Environmental Protection Agency (EPA) released its final rule to establish emission guidelines for carbon dioxide (CO₂) emissions from fossil fuel-fired power plants. Called the Clean Power Plan (CPP) by EPA, the rule sets state-specific, rate-based goals for CO₂ emissions from the power sector, subcategory-specific CO₂ emission performance rates, and state mass-based CO₂ goals that represent the equivalent of each state's rate-based goal. The rule also establishes guidelines for the states to follow in developing plans to achieve the state-specific goals. According to the agency, the rule would reduce CO₂ emissions from the power sector by 32 percent by 2030 from CO₂ emission levels in 2005.

While EPA improved the final rule from its proposed rule, the American Public Power Association (APPA) believes the final rule goes well beyond what is permissible under Section 111(d) of the Clean Air Act (CAA or Act) and is strongly concerned about its potential impacts on some public power utilities and their customers. APPA believes we need to address climate change, but not through the existing CAA, which was enacted to address criteria pollutants for human health protection and not CO₂ or other GHG emissions. In spite of the obvious problems with regulating GHGs under the Clean Air Act, EPA has decided to go forward with its efforts to regulate such gases from existing fossil fuel-fired power plants under Section 111(d). Had EPA proposed a rule that sought to reduce emissions through heat rate improvements at fossil fuel-fired electric generating units, the affected source, its rule would be on very solid legal ground. Instead, the agency chose to propose a rule that imposes emissions reductions that cannot be achieved by affected sources and requires the owner or operator of those sources to take actions that are separate and apart from the source. Thus, APPA has supported legislation in Congress to put the rule on hold

until the courts decide on its legality. APPA has also supported disapproval resolutions under the Congressional Review Act to overturn EPA's rules for CO₂ emissions from new and existing power plants. APPA has also challenged these rules in court.

Background

On June 25, 2013, President Obama sent a memo to the Acting Administrator of EPA directing him to issue proposed "standards, regulations, or guidelines, as appropriate, that address carbon pollution from modified, reconstructed, and existing power plants..." no later than June 1, 2014.¹ Final standards would have to be issued by June 1, 2015, and any guidelines addressing existing power plants must include a requirement that state plans required under Section 111(d) of the CAA and any implementing regulations be submitted to EPA by June 30, 2016. Following the President's directive, on June 2, 2014, EPA released its proposed emissions guidelines for CO₂ emissions from existing fossil fuel-fired power plants. It also released its proposed guidelines for emissions from modified and reconstructed power plants. On August 3, 2015, EPA released its final "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units" (called the Clean Power Plan) as well as its final "Standards for Performance for Greenhouse Gas Emissions from New Stationary Sources: Electric Generating Units" (new plant rule)² and final Carbon Pollution Standards for Modified and Reconstructed Stationary Sources: Electric Generating Units. In addition, EPA proposed its Fed-

¹ A copy of the Presidential Memorandum can be viewed at <http://www.whitehouse.gov/the-press-office/2013/06/25/presidential-memorandum-power-sector-carbon-pollution-standards>.

² While APPA has concerns with EPA's final rule to regulate CO₂ emissions from new power plants, this issue brief focuses exclusively on the existing plant rule.

eral Plan Requirements for Greenhouse Gas Emissions from Electric Generating Units; Model Trading Rules; Amendments to Framework Regulations (Federal Plan and Model Trading Rules) on August 3 (this was done in an effort to assist states to develop implementation plans that rely on tradable compliance instruments). All three rules and the proposed Federal Plan and Model Trading Rules were published in the Federal Register on October 23, 2015.

The Clean Power Plan sets final emission guidelines in the form of nationally uniform CO₂ emission performance rates for two kinds of fossil fuel-fired EGUs—steam generating units (1,305 pounds CO₂ per megawatt hour (lb CO₂/MWh)) and combustion turbines (771 lb CO₂/MWh). It also finalizes state goals between 771 and 1,305 lb CO₂/MWh based on the weighted average of existing fossil-fuel fire generation in the state and provides equivalent mass-based goals in short tons of CO₂. This is a substantial change from the proposed rule, which did not establish performance rates that would directly apply to EGUs and only proposed mandatory state goals. These changes resulted in a range of state goals that is much narrower than in the proposed rule and impose more stringent goals on states that are heavily reliant on coal-fired power.

Under Section 111(d) of the CAA, EPA may establish procedures for states to develop plans to establish performance standards for an air pollutant from existing sources. The state plans must “establish standards of performance that reflect the degree of emission limitation reduction achievable through the application of the ‘best system of emissions reduction’ [BSER] that, taking into account the cost of achieving such reduction and any non-air quality health and environmental impacts and energy requirements, the Administrator determines has been adequately demonstrated.”³ In the final rule, EPA determined “that the BSER is the combination of emission rate improvements and limitations on overall emissions at affected EGUs that can be accomplished through” three building blocks:⁴ (1) improving heat rates at affected coal-fired steam EGUs; (2) substituting increased generation from lower emitting existing natural gas combined cycle units for generation from higher-emitting affected steam generating units; and (3) Substituting increased generation from new zero-emit-

ting renewable energy generating capacity for generation from affected fossil fuel-fired generating units. The fourth building block on energy efficiency included in the proposed rule was dropped in the final rule. EPA then calculated the amount of emission reduction achievable through application of these three building blocks.

Under the final rule, states have to submit initial state plans to EPA by September 6, 2016. The initial plan must contain a non-binding indication of what type of plan and approaches the state intends to adopt, the reason why an extension is needed (assuming the state is seeking an extension of time to submit a plan), and evidence of public engagement. An extension is deemed granted if EPA does not object within 90 days of receipt. States must submit progress reports to EPA on September 6, 2017, with final state plans due by September 6, 2018. EPA has a year to approve a final state plan, which is required to include information such as a list of affected EGUs and their emission standards, a trigger mechanism for corrective measures, if interim goals are not achieved, and recordkeeping and reporting requirements, among others. States whose final plans are rejected or that fail to submit a final plan would be subject to a federal plan imposed by EPA.

Compliance with the rule's final goals would be required by 2030, although the final reporting period is actually from January 1, 2030, to December 31, 2031. The rule imposes two year compliance periods thereafter. In response to stakeholder input, EPA pushed back the date for compliance with the interim goals. There are three compliance periods beginning in 2022 and states can adopt them as is or adjust them in their state plans. Under the proposed rule, compliance with the interim goals began in 2020 and front-loaded the emissions reductions (commonly referred to as the “cliff”).

Congressional Activity

There has been a lot of interest in Congress in EPA's efforts to regulate CO₂ emissions from the electric utility industry. The House Energy & Commerce and Senate Environment & Public Works (EPW) Committees, which have jurisdiction over Clean Air Act issues, have held numerous hearings in the 114th and previous Congresses on the proposed and final rules, their potential impact to ratepayers, businesses, and the economy, and the Obama Administration's international efforts on climate change and whether those efforts are driv-

³ See footnote 1 of the final rule located at p. 64664 of the Federal Register, Vol. 80, No. 205, 10/23/2015.

⁴ P. 64707 of the Federal Register, Vol. 80, No. 205, 10/23/2015

ing the Clean Power Plan. Both committees have also approved legislation in 2015 that would put implementation of the final existing plant rule on hold until the courts decide on its legality. On June 24, 2015, the House passed H.R. 2042, the Ratepayer Protection Act, by House Energy & Power Subcommittee Chairman Ed Whitfield (R-KY) that would put the rule on hold until its legality has been determined by the courts. H.R. 2042 would also allow the governor of a state to opt out of compliance with the final rule if the governor determines complying with the rule would have a significant adverse impact on electric ratepayers or reliability in the state. Similar legislation, S. 1324, the Affordable, Reliable Electricity Now Act (ARENA), was approved by the Senate EPW Committee on August 5, 2015.

In addition, the House and Senate approved a disapproval resolution under the Congressional Review Act (S.J. Res 24), introduced by Senators Shelley Moore Capito (R-WV) and Heidi Heitkamp (D-ND), that would nullify the existing rule. Unfortunately, the disapproval resolution did not receive the number of votes needed to override a presidential veto. On December 18, 2015, President Obama vetoed the disapproval resolution, as well as another one on the new plant rule. APPA supported both disapproval resolutions.

APPA Position

While EPA improved the final rule from its proposed rule, the American Public Power Association (APPA) believes the final rule goes well beyond what is permissible under Section 111(d) of the CAA, and is strongly concerned about its potential impacts on some public power utilities and their customers. APPA believes the agency exceeded its authority under the CAA when it established standards of performance for any existing source in the fossil fuel-fired category that are not achieved in practice by an existing EGU through either technological or operational measures that limit the rate at which CO₂ is emitted by that source. APPA is not aware of any precedent under Section 111 whereby EPA has required the owner or operator of a source to take actions separate and apart from the source. Furthermore, the final rule sets standards that will result in the curtailment or closure of some affected facilities and the replacement of their generation by EPA-preferred sources such as wind and solar. EPA has the authority to require existing EGUs to make feasible improvements in their performance. Nothing in the CAA gives EPA

the authority to tell EGU owners and operators to limit operation or shutdown their units and instead generate electricity from other types of sources.

APPA believes we need to address climate change, but not through the existing CAA, which was enacted to address criteria pollutants for human health protection and not CO₂ or other GHG emissions. In spite of the obvious problems with regulating GHGs under the Clean Air Act, EPA has decided to go forward with its efforts to regulate such gases from existing fossil fuel-fired power plants under Section 111(d). Had EPA proposed a rule that sought to reduce emissions through heat rate improvements at fossil fuel-fired electric generating units, the affected source, its rule would be on very solid legal ground. Instead, the agency chose to propose a rule that imposes emissions reductions that cannot be achieved by affected sources and requires the owner or operator of those sources to take actions that are separate and apart from the source. Thus, in the 114th Congress, APPA has supported the Ratepayer Protection Act and ARENA to put the rule on hold until the courts decide on its legality. APPA has also supported disapproval resolutions under the Congressional Review Act to overturn EPA's rules for CO₂ emissions from new and existing power plants and the strong oversight conducted by the House Energy & Commerce and Senate Environment & Public Works Committees. In addition, APPA has challenged EPA's new and existing plant rules in the U.S. Court of Appeals for the D.C. Circuit.

APPA Contacts

Desmarie Waterhouse, Senior Government Relations Director & Counsel, 202-467-2930 / dwaterhouse@publicpower.org

Carolyn Slaughter, Director of Environmental Policy, 202-467-2943 / cslaughter@publicpower.org

APPA is the national service organization for the more than 2,000 not-for-profit, community-owned electric utilities in the U.S. Collectively, these utilities serve more than 48 million Americans in 49 states (all but Hawaii). APPA was created in 1940 as a nonprofit, non-partisan organization to advance the public policy interests of its members and their customers.

Regulation of Coal Combustion Residuals from Power Plants

Summary

Coal combustion residuals (CCR), also known as “coal ash,” consist of inorganic residues that remain after pulverized coal is burned, typically in plants that produce electric power. According to the Environmental Protection Agency (EPA), 110 million tons of CCR were produced by electric utilities in 2012, making it one of the largest waste streams generated in the United States. Out of that, approximately 94 million tons were disposed of in landfills, surface impoundments, or as mine fill. The remaining coal ash was beneficially used in some capacity, including for cement mixing, among many other uses. EPA estimates there are approximately 300 CCR landfills and 629 CCR surface impoundments or similar management units in use at roughly 495 coal-fired power plants. The number of surface impoundments was determined from survey data gathered by EPA.

Although coal ash is not included as a hazardous waste under the Resource Conservation and Recovery Act (RCRA), if managed improperly and leaks result, it can cause damage, as evidenced by the December 22, 2008, breach of an impoundment pond at the Tennessee Valley Authority’s (TVA’s) Kingston, TN, plant; and Duke Energy’s 2014 incident at its retired Dan River Steam Station in Eden, NC, where a break in a storm-water pipe beneath an ash basin caused a release of ash basin water and ash into the Dan River. In response to the Kingston plant spill, EPA, on June 21, 2010, proposed a rule that provided several options for regulating CCR, including regulation as hazardous waste under Subtitle C of RCRA or as non-hazardous waste under RCRA Subtitle D. On December 19, 2014, EPA released a final rule to regulate CCR as non-hazardous waste under Subtitle D.

APPA commends EPA for correctly regulating CCR as non-hazardous waste, but believes the final rule has some serious flaws. For one, it was issued under the

general Subtitle D provisions, which generally do not allow implementation of Subtitle D rules through state permit programs and also preclude EPA from enforcing its own rules. Subtitle D also does not allow use of risk-based options to implement certain elements of the groundwater monitoring program or to conduct clean ups, thus effectively overriding existing state risk-based regulatory programs for coal ash. In addition, it regulates inactive impoundments that still contain water and have not been closed, essentially regulating them as active disposal sites, an authority EPA does not appear to have under RCRA. APPA therefore supports H.R. 1734, the Improving Coal Combustion Residuals Regulation Act of 2015, by Representative David McKinley (R-WV), and S. 2446 by Senators John Hoeven (R-ND) and Joe Manchin (D-WV) to eliminate the implementation problems associated with the final rule and give states the ability to enforce EPA’s rule through the creation of state permit programs.

Background

Waste management is regulated under provisions of RCRA, which provides the general guidelines under which all waste is managed. RCRA also includes a congressional mandate that EPA must develop a comprehensive set of regulations to implement the law. Enacted in 1976, RCRA was intended, in part, to protect human health and the environment from the potential hazards of waste disposal, and ensure that wastes are managed in an environmentally sound manner.

At various stages of the coal combustion process, different types of residuals are generated. These residues include both coarse particles that settle to the bottom of the combustion chamber and fine particles that are removed from the flue gas by electrostatic precipitators, scrubbers, or fabric filters. Factors such as the source of the coal burned at a plant and the technology used (both to burn the coal and to filter the ash) have a bear-

ing on CCR characteristics and potential toxicity. Because CCR is unique in terms of its characteristics and ability to be beneficially re-used, EPA has been studying how best to regulate CCR since at least 1980.

The 1980 Beville Amendment to RCRA required EPA to “conduct a detailed and comprehensive study and submit a report” to Congress on the “adverse effects on human health and the environment, if any, of the disposal and utilization” of fly ash, bottom ash, slag, flue gas emission control wastes, and other byproducts from the combustion of coal and other fossil fuels and “to consider actions of state and other federal agencies with a view to avoiding duplication of effort.” Subsequently, EPA conducted the comprehensive study required by the Beville Amendment and reported its findings to Congress in March of 1988 and March of 1999. Both reports recommended that CCR should not be regulated as hazardous waste under Subtitle C of RCRA.

In August of 1993, EPA published a regulatory determination that regulation of the four large-volume CCRs (fly ash, bottom ash, boiler slag, and flue gas emission control waste) as hazardous waste under Subtitle C of RCRA was “unwarranted.” In May of 2000, EPA published a final regulatory determination that fossil fuel combustion wastes, including CCR, “do not warrant regulation [as hazardous waste] under Subtitle C of RCRA,” and that “the regulatory infrastructure is generally in place at the state level to ensure adequate management of these wastes.” In 2005, EPA and the U.S. Department of Energy published a study of CCR disposal facilities constructed or expanded since 1994 and evolving state regulatory programs that found that state CCR regulatory requirements have become more stringent in recent years—that, in fact, the vast majority of new and expanded CCR disposal facilities have state-of-the-art environmental controls.

Unfortunately, in 2008, TVA’s Kingston plant unintentionally released 1.1 billion gallons of coal fly ash slurry. The release covered more than 300 acres and damaged or destroyed homes and property. The sludge discharged into the nearby Emory and Clinch rivers, filling large areas of the rivers and resulting in fish kills. According to TVA, the estimated cleanup cost will likely reach \$1.2 billion.

Because of the spill at TVA’s Kingston site, and in spite of the history of CCR regulation and extensive analysis by EPA under various administrations, the agency proposed a range of options in a proposed rule released on June 21, 2010, including regulation of CCR

as hazardous waste under Subtitle C of RCRA, as well as regulation of CCR as non-hazardous waste under RCRA Subtitle D. Under the first option, EPA would draw on its existing authority to identify a waste as hazardous and regulate it under the hazardous waste management standards established under Subtitle C of RCRA. The second option would establish criteria applicable to landfills and surface impoundments accepting CCR under RCRA’s Subtitle D solid waste management requirements. Under Subtitle D, EPA does not have the authority to enforce its proposed requirements. Instead, EPA would rely on states or citizen suits to enforce its standards.

A final rule was released by EPA on December 19, 2014, that regulates CCR as non-hazardous waste under Subtitle D. Unfortunately, the rule has some serious flaws because it was issued under the general Subtitle D provisions of RCRA, which generally do not allow implementation of Subtitle D rules through state permit programs and precludes EPA from enforcing its own rules. Because the rule is self-implementing and cannot be delegated to the states, regulated facilities must comply with the requirements irrespective of whether the rule is adopted by the states. Even if a state adopts the rule, the federal rule remains in effect as an independent set of federal criteria that must be met, which can result in dual and likely inconsistent federal and state regulatory requirements. Furthermore, since the rule can only be enforced through citizen suits in federal district courts, legal disputes regarding compliance with any aspect of the rule will be determined on a case-by-case basis by different federal district courts across the country. This will result in federal judges making complex technical decisions on how to comply with the rule.

In addition, the rule does not allow for risk-based options for implementing elements of groundwater monitoring programs and conducting clean ups, thus effectively overriding existing state risk-based regulatory programs for coal ash that have proven to be protective of human health and the environment. It also regulates inactive impoundments (i.e., ones that no longer receive coal ash) that still contain water and have not been closed, essentially regulating them as active disposal sites, an authority EPA does not appear to have under RCRA. EPA has legal authority to address such impoundments under the Comprehensive Environmental Response, Compensation, and Liability Act and the imminent and substantial endangerment provision of RCRA.

Congressional Action

In the 113th Congress, Representative McKinley introduced H.R. 2218, the Coal Residuals Reuse and Management Act of 2013. This legislation aimed to amend Subtitle D of RCRA and establish a Coal Combustion Residuals Permit Program. The bill would have directed the states to administer a performance-based Subtitle D regulatory program for CCR patterned after the criteria for municipal solid waste landfills in 40 C.F.R. Part 258. It also included deadlines for issuing permits, setting criteria for assessing whether a state permit program meets minimum requirements, and new requirements focused on the structural integrity of coal ash dams. Many of the provisions in H.R. 2218 were designed to ensure that the states have adequate direction and authority to implement a CCR permitting program incorporating the minimum federal standards. H.R. 2218 passed the House of Representatives, but was not considered in the Senate.

In 2015, Representative McKinley introduced H.R. 1734, the "Improving Coal Combustion Residuals Regulation Act of 2015," to address the flaws in EPA's final rule and make it more workable for the states. The legislation would eliminate the implementation problems associated with the final rule and would give states the ability to enforce EPA's rule through the creation of state permit programs. It would also restore state flexibility related to risk-based options for implementing elements of the groundwater monitoring program and conducting clean ups that EPA disallowed in its final rule because of the self-implementing nature of Subtitle D. The bill was passed in the House of Representatives on July 22, 2015, by a vote of 258-166. Companion legislation (S. 1803) was introduced by Senators Hoeven (R-ND) and Joe Manchin (D-WV) on July 16, 2015. A modified version of S. 1803 was introduced in January 2016 by Senators Hoeven and Manchin — S. 2446. APPA has worked closely with the Utility Solid Waste Activities Group, National Rural Electric Cooperative

Association, and Edison Electric Institute on the development of the legislation and supports it in its current form.

In the Senate on June 17, 2015, the Environment & Public Works Committee held a hearing on EPA's final coal ash rule and on whether Congress should consider legislation to give EPA authority to approve state permitting programs. The committee may mark up coal ash legislation in early 2016.

APPA Position

APPA is pleased EPA is regulating CCR under Subtitle D of RCRA as opposed to under Subtitle C, but is concerned about several major flaws in the final rule due to the self-implementing structure of RCRA Subtitle D. APPA therefore supports the Improving Coal Combustion Residuals Regulation Act of 2015 to address these flaws and improve the regulation of CCR.

APPA Contact

Desmarie Waterhouse, Senior Government Relations Director & Counsel, 202-467-2930 / dwaterhouse@publicpower.org
publicpower.org ddwdwaterhouse@publicpower.org

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Solar Distributed Generation

Summary

The amount of solar distributed generation (DG) has increased significantly in the last five years. As of September 2015, 7.7 gigawatts¹ (GW) of distributed capacity has been installed in the U.S.,² and is expected to increase to approximately 9 GW by 2016, and as much as 20 GW by 2020. Driving this exponential growth is the dramatic decrease in the price of solar panels, with the installed costs of residential and commercial photovoltaic (PV) declining by over 70 percent since 2008. Also driving this growth are state, federal, and utility incentives for solar panel installations, as well as state renewable portfolio standards (RPS).

Potential benefits of solar DG include avoided generation capacity costs (e.g., less need to build new generation), ancillary services (e.g., need for less back up power), and avoided transmission costs, as well as reduced air pollution and greenhouse gas (GHG) emissions and mitigation against outages on the grid. However, DG poses many operational challenges to electric utilities. They include maintenance of electric grid system balance (DG can cause imbalances), safety issues for line-workers, load forecasting impairment (variable solar power makes it harder to predict the need for generation), and increased strain on the distribution system. DG can also pose revenue challenges for electric utilities if DG customers do not pay their share of the costs of maintaining the distribution system they rely upon to export their excess power and import power when their DG system does not generate power. These costs are borne by utility customers who do not

have rooftop solar. Many of these issues can be avoided through the use of community solar projects because they reduce variability on the system—a key to helping ensure reliable electric service. The American Public Power Association (APPA) believes solar DG can play an important role in helping utilities meet their state renewable portfolio standards (RPS) and other goals as long as solar DG customers pay their fair share of the costs of keeping the grid operating safely and reliably.

Background

DG is power that is produced at the point of consumption. Distributed energy resources (DER) can include solar photovoltaic (PV), small wind turbines, combined heat and power (CHP), fuel cells, and micro-turbines. Over 90 percent of installed DG in the U.S. today is solar. As of September 2015, 7.7 GW of distributed capacity has been installed in the U.S., and is expected to increase to approximately 9 GW by 2016 and as much as 20 GW by 2020. Driving this exponential growth is the dramatic decrease in the price of solar panels, with the installed costs of residential and commercial PV declining by over 70 percent since 2008. Also driving this growth are state, federal, and utility incentives for solar panel installations, such as tax credits, as well as state renewable portfolio standards (RPS) that require utilities to generate a certain percentage of their power from renewable energy sources such as wind and solar.

There are two basic methods for compensating distributed generators for the power they provide to utilities—net metering and feed-in tariffs. Under a net-metering program, a utility will credit customers with on-site generation for their kilowatt-hour (kWh) sales to the grid and charge them for periods when electricity consumption from the grid exceeds their generation. Essentially, the utility charges the net difference between consumption and generation. Under most net-metering

¹ A unit of power equal to one billion watts. U.S. electric capacity exceeds 1,000 GW. One GW powers roughly 750,000 residential homes in the U.S. Statistics on the amount of installed distributed solar generation from Energy Information Administration at <https://www.eia.gov/todayinenergy/detail.cfm?id=23972>

² EIA data on the amount of net metered solar PV customers in the U.S.

programs, the customer is both charged and credited at the utility's full retail rate of electricity. Since net-metering almost always does not account for time of usage, it potentially over-compensates distributed generators and credits them with a value of generation that is higher than the utility's avoided cost.

Under a feed-in tariff (FIT) program, the utility and distributed generator enter into a long-term contract under which the utility agrees to purchase excess generation at a per-kWh price, whereby the customer is paid like a non-utility wholesale power producer. Under FITs, rates vary from utility to utility and can be higher or lower than the retail rate. FITs are more common in Europe than the U.S. and have been used there to incent more DG.

Like the other sources for power generation, such as nuclear, natural gas, coal, hydropower, wind, geothermal, and biomass, solar provides numerous benefits and challenges. There are a number of potential benefits to solar DG. First, increased levels of solar DG could reduce the need for new utility generation assets, such as new natural gas-fired generation. Higher levels of solar DG could also help utilities avoid purchasing ancillary services such as spinning reserves to back up their existing generation, which are required to maintain grid reliability. More solar DG could also help utilities avoid higher transmission costs by reducing peak demand. Another benefit of solar DG is reduced air pollution and GHG emissions. Generally, solar DG displaces fossil fuel-fired generation with non-emitting resources. In addition, solar DG could help utilities mitigate against power outages on the grid by providing an alternate source of power.

However, solar DG poses many operational challenges to electric utilities. One challenge from solar DG is its impact on electric grid system balance. Low levels of solar DG can reduce demand at a substation, but too much solar DG can create excess demand at a substation causing power to flow from the substation to the transmission grid, which could cause high voltage swings and other stresses on electric equipment. Utilities will have to make capital investments to address these potential strains on the system. Solar DG also poses potential safety issues, such as "islanding," where the solar DG unit continues to energize a feeder even though the electric utility is no longer supplying power due to an

outage or other cause. This creates a very high safety risk to line-workers who may not realize the circuit is still energized. While solar DG units are required to have inverters to prevent this from happening, some installations lack them.

In addition, while solar DG can provide a greater level of system protection, it is more difficult to monitor, which in turn impacts load forecasting. Such impairment of load (demand) forecasting, due to the variability of solar power, can lead in rare circumstances to outages and blackouts. Solar DG can also place increased strain on the distribution system since solar DG customers rely on the transmission, distribution, and generation systems more than non-DG customers. The distribution system was designed to carry power in one direction. Solar DG requires it to carry power in two directions, which causes some of the operational challenges discussed above.

Solar DG can also pose revenue challenges for electric utilities. Solar DG customers are typically compensated at times when they produce excess power to the distribution grid and charged when they consume power from the utility. Their electric bills can net to zero, and even in some cases, their net balance can go negative, meaning the utility must pay the customer. Since residential electric bills are based primarily on electric consumption, and the associated customer charges rarely reflect the full amount of fixed costs utilities incur to provide retail electric service, utilities could face a revenue shortfall. As a result, other retail customers subsidize customers with distributed generation or the utility under-recovers the cost of providing service. These electric "rate design" issues must be addressed in an equitable manner as solar DG penetration becomes a more significant part of the mix in utility service territories.

Many of the challenges posed by solar DG can be overcome with collaboration between electric utilities and their customers. Given their local focus and oversight, public power utilities are uniquely situated to have this dialogue. These challenges can also be overcome through the use of community solar projects where the PV system is centralized and owned by multiple members of the community and the local utility.

Congressional Activity on Solar DG

Because solar DG is interconnected to the distribution system and retail rate setting is handled by state public utility commissions or at the local level for public power utilities, solar DG issues have principally arisen at the state and local levels. However, given the rapid growth of solar DG and the recent policy debates that have occurred in many states about the appropriate way to compensate solar DG power, many Members of Congress are interested in learning more about DG and how it could impact their constituents and the utilities operating in their districts or states. In particular, Members of Congress have expressed concerns about potential deceptive roof-top solar practices. In November 2014, Representative Ann Kirkpatrick (D-AZ) and several Democratic Representatives sent a letter to Consumer Financial Protection Bureau asking what it is doing to protect consumers from misleading sales practices. In December 2014, a similar letter was sent by Representative Paul Gosar (R-AZ) and 11 other Republican representatives to the Federal Trade Commission. Concerns outlined in these letters included the possible use of deceptive marketing strategies by third-party leasing companies that “overstate the savings the homeowner will receive, while understating the risks associated with agreeing to a decades-long lease that is often secured by a second deed of trust to the house” that will likely exceed both the life of the roof and duration of the lessor’s home ownership. Future examination by Congress of deceptive practices by roof-top solar leasing companies is possible in the 114th Congress, as is further exploration of the incentives, technology, and operational issues surrounding solar.

In addition, energy legislation in the Senate and House include provisions related to distributed energy resources (DERs), including solar DG. S. 2012, the Energy Policy Modernization Act of 2015, approved by the Senate Energy & Natural Resources (SENRR) Committee in July, included provisions on solar DG, such as Section 2311, which directs the Department of Energy (DOE) to issue guidance on criteria for net metering studies conducted by the department. Section 2311 also directs DOE to undertake a study of net energy metering. While APPA as a policy matter has concerns with any legislation that would federalize solar DG issues because they are jurisdictional at the state and local level, Section 2311 takes a balanced approach to the issue and requires DOE to take into account a balanced set of issues (i.e., these studies must factor in the benefits and

challenges of solar). Section 2310 in the bill is problematic and would require Regional Transmission Organizations (RTOs) to submit a report to the Federal Energy Regulatory Commission on barriers to the deployment of distributed energy systems and micro-grid systems under 69 KV. APPA is concerned this provision would essentially do the same thing for DERs and micro-grids that FERC Order No. 745 did for demand response; that is to federalize a retail issue jurisdictional to states and local governments. When S. 2012 was marked up by the Committee in July, several amendments were offered on solar DG that were rejected. Similar amendments were filed and considered when S. 2012 came to the senate floor for debate this winter.

The House energy bill, H.R. 8, the North American Energy Security and Infrastructure Act, also includes several solar DG provisions, some of which are balanced and others are not. During floor consideration in the House of H.R. 8, language was added that would amend Section 111(d) of the Public Utility Regulatory Policies Act of 1978 to require states to consider forcing utilities to connect community solar installations into the grid, as well as offer net billing service. APPA opposes this language because it would violate retail electric service laws states without retail electric competition and is redundant of existing federal interconnection standards imposed on states.

APPA Position

APPA believes DG can and should play an important role in public power’s renewable energy portfolio. Public power utilities will continue to work collaboratively with their customers to deploy solar DG as well as community-scale solar farms.

In order to continue fostering the growth of DG, and solar in particular, it is important that DG customers pay their fair share of the costs of keeping the grid operating safely and reliably. Net-metering policies and FITs need to be designed to reflect costs and assure that those who benefit from the grid are sharing in the cost of building and maintaining it. The federal government should not seek to federalize rate design and distribution-related matters that are governed by state and local laws. In addition, consumers must be protected from deceptive or misleading sales practices by third-party leasing companies.

APPA Contact

Desmarie Waterhouse, Senior Government Relations
Director & Counsel, 202-467-2930 / dwaterhouse@
publicpower.org

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Municipal Bonds and Public Power

Summary

For more than 200 years, state and local governments and governmental entities, including public power utilities, have relied on municipal bonds as a means of financing. Nearly three-quarters of all core infrastructure built in the U.S. is financed with municipal bonds. Since the inception of the federal income tax in 1913, interest paid on these bonds has been exempt from federal tax, just as federal bonds, bills, and notes are exempt from state and local taxes. With the federal government facing severe fiscal challenges—seeking to reduce annual budget deficits while also lowering marginal income tax rates—several policymakers have proposed reversing this 100-plus year precedent. Doing so would simply shift the federal government’s budget problems to state and local governments and, in the case of public power utilities, hurt critical investments in power generation, energy efficiency, safety, security, and emissions controls, while increasing costs for customers.

Therefore, the American Public Power Association (APPA) opposes any efforts to limit or eliminate municipal bonds given these adverse impacts on our public power utility members and their customers.

Background and History

The first recorded municipal bond was issued in 1812. Today, there are \$3.7 trillion in municipal bonds outstanding, with more than \$200 billion funding new projects every year. Close to five percent of those issuances (as much as \$11 billion every year) finance new investments in power generation, distribution, reliability, demand control, efficiency, and emissions control: all needed to deliver safe, affordable, and reliable electricity.

In addition to infrastructure for public power utilities, these bonds finance roads, bridges, sewers, hospitals, libraries, schools, town halls, police stations, and

every other sort of government-purpose investment made by state and local governments. In fact, nearly three-quarters of the infrastructure investment in the U.S. is financed by state and local government bonds.

Since the creation of the federal income tax in 1913, interest on government purpose municipal bonds has been excluded from federal income tax. This dates back to a series of Supreme Court decisions in the 1800s concluding first, that a state tax on a federal enterprise inherently violated the Constitution and, second, that a federal tax on municipal bond interest likewise would be unconstitutional. Subsequently, the Supreme Court has given the federal government the right to regulate government purpose municipal bonds—for example, requiring issuers to register bonds for the interest to be exempt from tax—and to tax the interest on bonds determined not to be for governmental purposes. By way of example of the latter, the 1986 Tax Reform Act substantially revised the tax treatment of private activity bonds.¹ In 1988, a slim Supreme Court majority in *South Carolina v. Baker* found that municipal bonds could be taxed, but Congress has been unwilling to overturn decades of precedent by changing the tax treatment of government purpose bonds.

¹ Private activity bonds differ from government purpose municipal bonds in that they can be issued by a state or local government to finance certain private projects. Interest on qualifying private activity bonds is exempt from regular federal income tax, but subject to the federal Alternative Minimum Tax (AMT). The volume of private activity bonds that can be issued in a state is subject to an annual cap. While power generation and distribution are among the qualified private activity bond activities, other restrictions and considerations make the use of tax-exempt private activity bonds rare for such purposes. Of 1,150 municipal bonds issued for public power projects from 2007-2011, just 30 were private activity bonds.

Strengths and Benefits of Municipal Bonds

State and local governmental entities—including public power utilities—have limited means to raise funds for their communities' capital needs. The municipal bond market gives close to 42,000 governmental issuers access to investors. This is particularly important to the vast majority of small towns, counties, cities, and publicly owned utilities that issue municipal bonds. The median corporate bond issue is \$210 million. Conversely, while roughly five percent of municipal bond issuances are for \$200 million or more, the vast majority of municipal bonds, including for public power investments, are far smaller: the median municipal bond issuance is \$7 million.

The federal tax exclusion of bond interest means issuers can finance their investments affordably. Over the past 20 years, the average yield of Standard & Poor's Corporate Bond (Aaa) Index has been 130 basis points higher than that of Moody's High-Grade Municipal Bond Index. Adjusting for the cost of call provisions common in municipal bonds, but rare in corporate taxable bonds, the spread is closer to 180 basis points. The difference can save municipal bond issuers 25 percent over the 30-year life of a project. These savings result in more critical investments in infrastructure and essential services by state and local governments and lower costs for the services they provide. Also, municipal bonds are ideally suited to finance capital-intensive and long-lived public infrastructure, such as the assets of a public power utility.

Investors purchase municipal bonds in part because of tax considerations, accepting a lower rate of return because the interest is exempt from federal income tax. Municipal bonds are also valued for their ability to generate a steady stream of revenue for fixed-income households. Individual households are the investors in over 70 percent of municipal bonds. Nearly 60 percent of this household tax-exempt interest is earned by taxpayers over 65 years old. In 2012, 48 percent of all municipal bond interest paid to individuals went to those with incomes of less than \$250,000.²

Recent market performance and the "flight to quality" underscore that municipal bonds are also valued as stable financial investments. Now more than 200-years old, the U.S. municipal bond market is well-established, with a robust and comprehensive federal legislative and

regulatory system that protects investors. Likewise, municipal bonds themselves are typically extremely secure investment vehicles: the default rate for investment grade municipal bonds is far less than 0.1 percent, a fraction of the default rate for comparably rated corporate bonds.

Congressional and Administration Actions—Threats to Municipal Bonds

Calls to tax municipal bonds to pay for federal income tax rate cuts or deficit reduction are on the rise. All would have the same effect: limiting or eliminating the income tax exemption for interest from municipal bonds would reduce investments in vital infrastructure across the country and increase the cost of electricity for public power customers. Ultimately, a disproportionate share of this burden will be shouldered by those who can least afford it.

The draft report of the President's Commission on Fiscal Responsibility and Reform (the "Bowles-Simpson" report) proposed taxing interest on newly issued municipal bonds. It is unclear whether the taxable bond market could accommodate 12,000 municipal bonds issued every year and how smaller issuers—who would be dwarfed by the typical corporate issuer—would fair in the taxable market. Analyses show that financing debt with taxable bonds would increase municipal issuers' costs by as much as 38 percent. On average, public power municipal bonds finance as much as \$11 billion in new projects every year. Repealing the exclusion for municipal bond interest would add an estimated \$2.5 billion in borrowing costs over the life of each year's issuances. Ultimately those costs will be paid by public power customers in the form of higher electric bills.

The Obama Administration has proposed capping at 28 percent the tax value of the exclusion for municipal bond interest and other deductions and exclusions. This would have the effect of imposing a surtax on bond interest. An analysis of this proposal shows that it would increase borrowing costs by 32 to 35 percent. Moreover, the proposal would apply retroactively to \$3.7 trillion of existing bonds—an unprecedented and unfair tax that would cause instability in the municipal bond market. At the levels being discussed—a flat dollar cap on deductions and exclusions—if it included municipal bond interest, would be even worse, effectively repealing the income exclusion for most bond holders.

² Internal Revenue Service, "Statistics of Income—2010: Individual Income Tax Returns" (2012).

Former House Ways and Means Committee Chairman David Camp (R-MI) proposed his own 10 percent surtax on municipal bond interest, and former Senate Finance Committee Chairman Ron Wyden (D-OR) proposed repealing the exclusion for municipal bonds, partly replacing the exclusion with an income tax credit available to individuals, but not corporations. Despite numerous efforts at creating workable tax credit bond programs, they have had little acceptance among investors, and the prices that investors have been willing to pay for these bonds have resulted in tax credit bonds having their own inefficiencies that far exceed the purported inefficiencies of tax-exempt bonds.

The Congressional Budget Office (CBO) has proposed replacing the exclusion for municipal bonds with a direct cash subsidy from the federal government to issuers. Currently such “direct payment bonds” work as a complement to tax-exempt bonds, not a replacement. They could not, however, accommodate the 44,000 state and local governments that routinely participate in the municipal bond market, most of whom are very small issuers. As a result, many local governments would be shut out of the bond market. One analysis shows that total borrowing costs would increase by 16 percent if the direct payment bond were set at 25 percent of the issuer’s interest expenses. A payment of 15 percent—as proposed by CBO—would raise \$30 billion annually for the federal government primarily at the expense of bond issuers. Bond issuers would also be vulnerable to the annual budget process, as evidenced by the ongoing sequestration order for Build America Bond payments. (See APPA’s fact sheet, “Sequestration for Build America Bonds’ Credit Payments” for additional information.)

APPA Position

The American Public Power Association (APPA) believes that municipal bonds should be preserved and enhanced, and, as a result, the federal tax exclusion of the interest from such bonds should not be limited or replaced with a tax credit or direct payment subsidy. As not-for-profit, consumer-owned utilities, our members’ mission is to provide reliable and affordable electricity for our customers. Taxing municipal bonds would impose higher borrowing costs that would limit investment in critical infrastructure and, ultimately, impose higher electric rates on our residential and business customers, with unclear benefits for purposes of the overall economy and federal budget. As a result, APPA opposes any effort to undermine this important financing tool.

APPA Contacts

John Godfrey, Senior Government Relations Director,
202-467-2929 / jgodfrey@publicpower.org

Joy Ditto, Senior Vice President, Legislative & Political
Affairs, 202-467-2954 / jditto@publicpower.org

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Cybersecurity and the Electric Sector

Summary

The electric utility industry (including public power utilities) takes very seriously its responsibility to maintain a strong electric grid. That is why the industry worked together to reach consensus on a mandatory reliability regime spelled out in the Energy Policy Act of 2005 (EPA05). Partnering with Congress, the Federal Energy Regulatory Commission (FERC), and North American Electric Reliability Corporation (NERC), industry experts are engaged in an ongoing effort to establish and enforce comprehensive standards to strengthen the grid, including those to enhance cybersecurity. The American Public Power Association (APPA) applauds the recent passage of the Cybersecurity Act of 2015, which makes possible cyber threat information sharing and liability protection that public power has long believed are the best way to enhance cybersecurity across critical infrastructure sectors.

As the grid evolves, unfortunately, so do threats to its integrity. The threat of cyber-attacks is relatively new compared to long-known physical threats, but an attack with operational consequences could occur and cause disruptions in the flow of power if malicious actors are able to hack into data overlays used in some electric generation and transmission infrastructure. Furthermore, such an attack could also cause public power utilities to incur liability for damages. While APPA believes that the industry itself, with NERC, has made great strides in addressing cybersecurity threats, vulnerabilities, and potential emergencies, we recognize that emergency situations warranting federal involvement may arise. Thus, APPA has long supported language to give the Secretary of Energy broader authority to address grid security emergencies while facilitating the protection and voluntary sharing of critical electric infrastructure information (CEII) in order to fully address imminent cyber attacks with possible operational

consequences. Protecting sensitive information about critical assets is a key element in keeping this sensitive information secure. Utilities and federal agencies must be able to compile and share sensitive information about the electric grid in order to improve grid security, but inappropriate disclosure of such sensitive information raises security concerns. This could have a negative effect on joint public-private security efforts, especially those that rely on voluntary information sharing. Thus, APPA applauds passage of Fixing America's Surface Transportation Act (FAST Act), P.L. 114-94, which includes provisions to protect such information. APPA also applauds the enactment of Cybersecurity Act of 2015, which facilitates information sharing on cybersecurity threats and provides limited liability protections for sharing activities.

Background and Congressional Action

The electric utility sector is the only critical infrastructure sector besides nuclear power plants (a part of the overall sector) that has any mandatory and enforceable federal regulatory regime in place for cybersecurity. Under the mandatory regime established in Section 215 of the Federal Power Act (FPA), which requires reliability standards for the electric utility industry, public power utilities have been working with FERC, NERC, and others in the electric utility sector to improve the reliability and security of the bulk electric system. This partnership between the federal government and the electric sector has proven to be one marked by constant improvements in communication, technology, and preparedness as the standards have evolved since full implementation of EPA05 began in 2007.

To date, the electric utility sector's FPA Section 215 processes and its actions beyond the Section 215 regime have prevented a successful cyber-attack causing operational consequences on the bulk electric system. That

said, APPA has long recognized that increased information sharing and appropriately tailored liability protection would further enhance the industry's ability to guard against cyber attacks. As such, APPA strongly supported passage of the Cybersecurity Act of 2015, which was incorporated as Division N of H.R. 2029, the Consolidated Appropriations Act, 2016. Signed into law by President Obama on December 18, 2015, it is the result of negotiations to reconcile cybersecurity bills passed by the House and Senate Intelligence Committees and House Homeland Security Committee earlier in the year (S.754 and H.R. 1560). The Act sets up policies and procedures for sharing cybersecurity threat information between the federal government and private entities (which include public power) and between private entities and provides limited liability protection for these activities if conducted in accordance with the Act.

In addition to the Cybersecurity Act of 2015, Section 61003 of P.L. 114-94, gives the Secretary of Energy broader authority to address grid security emergencies under the FPA and clarifies the ability of FERC and other federal agencies to protect sensitive CEII from public disclosure under the Freedom of Information Act (FOIA) and other sunshine laws. This language is identical to Section 1104 of H.R. 8, the North American Energy Security and Infrastructure Act of 2015, and similar to the language in Section 2001 of S. 2012, the Energy Policy Modernization Act of 2015.

The CEII language in the FAST Act and House and Senate energy bills is based on stand-alone legislation, H.R. 2402, introduced by Rep. Zoe Lofgren (D-CA) and Rep. Trey Gowdy (R-SC). Under the FAST Act, FERC designated CEII would be exempted from disclosure for a period of up to five years with a process to lift the designation or challenge it in court. The bill also requires FERC to facilitate voluntary information sharing between federal, state, local, and tribal authorities, the Electric Reliability Organization, regional entities, and owners, operators, and users of the bulk-power system in the U.S. In addition establishes sanctions for the unauthorized disclosure of shared information.

Outside of the legislative process, APPA and its members, as well as other utilities, continue to participate in the NERC CIP standards drafting process on cyber- and

physical-security. (See APPA's "Physical Security and the Electric Sector" fact sheet for more information on the physical-security standard.) As attacks on critical electric infrastructure are ever-changing, so must be the nature of our defenses, whether they are designed to protect cyber or physical assets. As such, CIP Version 3 cybersecurity standards are in effect and enforceable. Version 5 has been approved by FERC, and will be enforceable on April 1, 2016. FERC has also approved a physical security standard to protect the Nation's most critical substations that becomes enforceable on October 1, 2015. Finally, APPA worked with others in the electric sector to participate in and comment on the activities outlined in President Obama's Executive Order on cybersecurity released in February 2013. The Executive Order required the creation of a cybersecurity framework, which was released in February 2014. APPA has encouraged its members to adopt this framework and evaluate their cybersecurity plans.

APPA is also involved with internal and external working groups that enhance the security of the electric grid. APPA created the Cybersecurity and Physical Preparedness Committee (CAPP), a collection of APPA members who serve on working groups and share information related to security issues. Furthermore, APPA and its members play a leadership role in the Electricity Sub-sector Coordinating Council (ESCC), the government/industry partnership focused on security and information sharing that is mentioned earlier in this document. Through the ESCC, APPA works with the other critical infrastructure sectors, such as the downstream natural gas and dam sectors.

APPA Position

APPA applauds the recent passage and signing into law of the Cybersecurity Protection Act of 2015 and the FAST Act, and looks forward to ensuring that both laws are appropriately implemented. We also appreciate our enhanced partnership with the federal government and will continue to ensure that the lines of communication are open between public power utilities and the federal government so that we can collectively prepare and respond to cyber attacks.

APPA Contacts

Joy Ditto, Senior Vice President, Legislative & Political Affairs, 202-467-2954 / jditto@publicpower.org

Amy Thomas, Government Relations Director, 202-467-2934 / athomas@publicpower.org

Cory Toth, Government Relations Director, 202-467-2939 / ctoth@publicpower.org

APPA is the national service organization for the more than 2,000 not-for-profit, community-owned electric utilities in the U.S. Collectively, these utilities serve more than 48 million Americans in 49 states (all but Hawaii). APPA was created in 1940 as a nonprofit, non-partisan organization to advance the public policy interests of its members and their customers.

Physical Security and the Electric Sector

Summary

While threats from cyber attackers are on the rise, public power utilities also face threats to their physical infrastructure—the poles, wires, substations, transformers, and generating facilities comprising these utilities’ means of delivering electricity to their customers. The majority of physical-security threats to electric infrastructure, such as copper theft, have been known for years. However, more sophisticated threats have emerged with the attack on a California substation in April 2013. While customers did not lose power as a result of the attack due to the redundancy built into the system, it was a reminder to law enforcement and electric utilities about the importance of working together to protect critical utility assets.

Electric utilities, including public power utilities, take physical (and cyber, as discussed in the companion issue brief “Cybersecurity and the Electric Sector”) threats seriously and employ risk management programs to prioritize facilities and equipment, develop contingency plans, and employ defense-in-depth techniques to “keep the lights on.”

Background

Public power utilities intimately understand the importance of physical security and have longstanding programs and protocols designed to protect their utility systems. As the nature of physical threats has changed over the years, public power utilities have planned, prepared, and responded accordingly. Today, due to security breaches, such as vandalism and terrorist attacks that can cause damage to this infrastructure, utilities must develop the best available mitigation practices to address such attacks. Physical infrastructure security can range from a substation with camera, locks, and fences to equipment tracking systems (such as Radio Frequency Identification (RFID) tags) on all of a given utility’s equipment.

In recent years, a few high profile incidents of physical security failure have drawn increased scrutiny from several areas. One incident that received press attention was a shooting incident at a transformer at an Arkansas utility. Another high profile incident took place at the Metcalf substation on Pacific Gas and Electric’s (PG&E) system in California where at least one person fired over 150 rounds of ammunition and cut two critical telecommunications cables to the substation. These and several other press reports on attacks on utility infrastructure have caused some Members of Congress to react by introducing or exploring legislation related to utility security.

Congressional and Regulatory Action

The nation’s electric distribution systems have always been, and are today, regulated by state and local governments. This is a deliberate separation of power given the retail nature of distributions systems, and the vast differences in the configuration, size, and ownership of the 3,000 distribution utilities in the U.S. Given this situation, each individual utility’s role in the security of its distribution facilities is paramount. However, in the past few Congresses, several legislative proposals have included physical-security requirements for electric utilities. While APPA supports physical security initiatives at the bulk power system and distribution levels, we do not support a federally legislated “one-size-fits-all” mandate due to the differences in systems and regions noted above.

The North American Electric Reliability Corporation (NERC), which promulgates mandatory and enforceable standards for the federally jurisdictional bulk power system to ensure the reliability of that system, has considered proposals and issued regularly updated security guidelines that would enhance physical-security requirements related to access to cyber assets at electric

utilities. (See APPA's "Electric Transmission Policies" issue brief for additional information on the bulk power system.) On March 7, 2014, under its authority granted in Federal Power Act (FPA) Section 215, FERC directed NERC to submit proposed reliability standards within 90 days that would require utilities with critical assets to take steps, or to demonstrate that they have taken steps, to address physical-security risks and vulnerabilities related to the reliable operation of the bulk power system. NERC submitted a draft standard to FERC in 77 days and, on November 20, 2014, FERC approved this standard. (See APPA's "Cybersecurity and the Electric Sector" issue brief for more information about the FERC/NERC relationship, as codified in FPA Section 215.)

At the separate requests of then Senate Majority Leader Harry Reid (D-NV) and House Energy & Commerce Committee Chairman Fred Upton (R-MI), and in light of the Metcalf incident mentioned previously, the American Public Power Association (APPA), Edison Electric Institute, and National Rural Electric Cooperative Association participated in House and Senate briefings with Members of Congress in 2014 to explain what utilities are doing to secure their physical assets. Furthermore, APPA President and CEO Sue Kelly testified about physical security as part of her testimony to the Senate Energy & Natural Resources Committee in May 2014.

Industry Action

In 2013, the electric utility industry collaborated with the federal government to reconfigure the Electricity Sub-sector Coordinating Council (ESCC). Coordinating councils throughout the 16 critical infrastructure sectors exist to facilitate dialogue and collaboration between the sector (or sub-sector) and its sector-specific federal agency which, in the case of the ESCC, is the Department of Energy (DOE). The purpose of the ESCC is to facilitate and support the coordination of sub-sector wide, policy-related activities and initiatives designed to improve the reliability and resilience of the electric sub-sector, including physical and cybersecurity infrastructure and emergency preparedness of the entire sub-sector. The goal of the ESCC is to establish an ongoing dialogue between senior industry representatives and Administration officials in order to carry out the role of the Sector Coordinating Council as established in the National Infrastructure Protection Plan (NIPP).

APPA and its members played a leading role in

developing the expanded and enhanced ESCC that was finalized in 2013, and continue to play a leadership role in the ESCC itself. Furthermore, APPA has created the Cybersecurity and Physical Preparedness Committee (CAPP), a collection of APPA members who are engaged on security issues and who interact with each other, other public power utilities, and APPA staff to enhance public power's existing security culture. Through the ESCC, APPA staff and its members have engaged in tabletop exercises with the DOE, Department of Homeland Security, White House National Security Staff, FERC, and other agencies along with industry partners, such as the National Governor's Association and National Association of State Energy Officials, which have led to improved communication and coordination.

APPA has taken many steps to advise its members on the importance of physical security. After the September 11, 2001, terrorist attacks, the association initiated a security listserv that remains active today. The creation and adoption of the National Electrical Safety Code for substations is another initiative APPA has supported and promoted. APPA continually provides its members with security-related guidance and updates, including security checklists, tools, and all other available opportunities to enhance their physical security.

In May 2014, APPA and public power utilities worked with NERC to draft a physical-security standard, CIP-014, to protect critical components of the bulk electric system. The standard does not prescribe specific solutions, but instead offers utilities the latitude to develop physical security practices that best mitigate risks specific to their geography and systems.

In addition, on November 18-19, 2015, APPA and other members of the electric utility sector participated in Grid Ex III, a simulated combined cyber- and physical-attack exercise organized by NERC. Designed to enhance and improve cyber- and physical-security resources within the electric utility industry, the Grid-Ex drill is held every two years. The first exercise took place in 2011, the second in 2013, and the 2015 drill was the third. The exercise gave the 360 electric entities and government agencies participating the opportunity to check the readiness of their crisis-action plans through a simulated security exercise to self-assess response and recovery capabilities, and to adjust actions and plans as needed, while communicating with industry and government information sharing organizations. Participating utilities faced simulations of prolonged, coordinated cyber-attacks against certain automated

systems used by power system operators. The scenario also included coordinated physical attacks against key transmission substations and generation facilities. These attacks caused utilities to enact their crisis-response plans and “walk through” internal security procedures. While the details of the exact simulations are classified, press reports indicated that the threat scenario included attempts to turn out the lights across America, inject computer viruses into grid control systems, bomb transformers and substations, and knock out power lines by the dozen. Grid Ex III was a very useful exercise for APPA and participating public power utilities, allowing them to test their readiness and preparedness for both cyber and physical attacks.

On June 7, 2015, APPA hosted a successful tabletop exercise for public power utilities, government representatives, and industry partners. The exercise simulated a physical security breach at multiple electric utilities and allowed participants to discuss emergency response procedures at the executive level. Participants discussed coordination using the APPA Mutual Aid Playbook and Electricity Sub-sector Coordinating Council Playbook. An after-action report has been used to further refine procedures and strengthen public power’s response to physical attacks. APPA will continue to use tabletop exercises as a tool to understand the needs of public power utilities in responding to manmade disasters.

APPA Position

APPA supports the adoption by public power utilities of appropriate physical-security measures that take into account the specific assets being secured. APPA supports enhanced dialogue between the industry and federal government on physical-security threats and potential remediation, but does not support federal mandates in this area at the distribution level because a “one-size-fits-all” approach would do little to secure those assets. APPA supports the FERC/NERC relationship codified in FPA Section 215 and as used to craft a standard on electric utility physical security for the bulk-power system.

APPA Contacts

Joy Ditto, Senior Vice President, Legislative & Political Affairs, 202-467-2954 / jditto@publicpower.org

Puesh Kumar, Director, Engineering & Operations, 202-467-2985 / pkumar@publicpower.org

Nathan Mitchell, Sr. Director of Electric Reliability Standards and Security, 202-467-2925 / nmitchell@publicpower.org

Amy Thomas, Director of Government Relations, 202-467-2934 / athomas@publicpower.org

Cory Toth, Director of Government Relations, 202-467-2939 / ctoth@publicpower.org

APPA is the national service organization for the more than 2,000 not-for-profit, community-owned electric utilities in the U.S. Collectively, these utilities serve more than 48 million Americans in 49 states (all but Hawaii). APPA was created in 1940 as a nonprofit, non-partisan organization to advance the public policy interests of its members and their customers.