4.0. 3PARTY COVENANT FINANCING AND REGULATORY PROGRAM

The 3Party Covenant is a financing and regulatory program that aims to address the hurdles inhibiting IGCC deployment. It is designed to provide developers of IGCC power plants access to capital at lower cost and in a way that tolerates technology risk. The program significantly reduces cost of capital to make IGCC economically competitive and minimizes the budget expenditure required of the federal government. The program is designed to facilitate development of an initial fleet of commercial IGCC plants this decade to establish the commercial viability of the technology and promote commercial optimization to reduce costs.

4.1. Key Elements of 3Party Covenant

The 3Party Covenant is a financial and regulatory arrangement among a federal agency, a state PUC, and an equity investor to finance the development of an IGCC power plant. The three key elements are as follows:

Federal Loan Guarantee: The program for implementing the 3Party Covenant is established through federal legislation authorizing a federal loan guarantee to finance IGCC projects. The terms of the federal guarantee provide for an 80/20 debt to equity financing structure and require that a proposed project obtain from a state PUC an assured revenue stream to cover return of capital, cost of capital, and operating costs. The terms also require the project to capitalize a 10 percent Construction and Operating Reserve Fund, to have appropriate construction guarantees from the EPC firm hired to design and build the plant, and to meet stringent environmental performance specifications. The terms would also enable the project to have available an additional draw on the federally guaranteed debt ("Line of Credit") of up to 15 percent of project Overnight Capital Costs (to be matched with a 20 percent equity contribution when drawn).

State PUC Approval Process: States interested in participating in the program voluntarily opt-in by adopting utility regulatory provisions for state PUC review and approval of IGCC project costs, which in some states requires legislative action to create appropriate enabling authority. Specifically, a state PUC (or other utility ratemaking body in the case of municipal utility or rural electric cooperative), acting under state enabling authority, agrees to assure dedicated revenues to qualifying IGCC projects sufficient to cover return of capital (depreciation and amortization), cost of capital (interest and authorized return on equity), taxes, and operating costs (e.g., operation, maintenance, fuel costs, and taxes). (Depending on the ownership structure and sales profile (i.e., retail sales versus wholesale sales) of the IGCC project, the Federal Energy Regulatory Commission (FERC) may take on some of the role otherwise assigned to the state PUC.) The state PUC provides this revenue certainty through utility rates in states with traditional regulation of retail electricity sales, or through non-bypassable

wires charges and fixed capacity charges in states with competitive retail electricity sales, by certifying (after appropriate review) that the plant qualifies for cost recovery and establishing rate mechanisms to provide recovery of approved costs, including cost of capital. The certification by the state PUC occurs upfront when the decision to proceed with the project was being made, and the prudence review by the state PUC and cost recovery occurs on an ongoing basis starting during construction, which reduces the construction risks borne by the developer, avoids accrual of construction financing expenses, and protects ratepayers.

Equity Investor: The equity investor under the 3Party Covenant is either an electric utility (or municipal utility or rural electric cooperative) or an independent power producer that secures a long-term power contract with a utility (or a contract that has a comparable credit rating). The investor contributes equity for 20 percent of the Total Plant Investment and negotiates performance guarantees to develop, construct, and operate the IGCC plant. A fair equity return is determined and approved by the state PUC before construction begins.

The 3Party Covenant program provides a mechanism for reducing investor risk and the cost of IGCC power to stimulate project investments this decade. As demonstrated in Section 5.5 below, the approach significantly reduces the cost of IGCC power, making it cost competitive with PC and natural gas combined cycle generation.

4.2. Roles and Perspectives of Three Parties

Under the 3Party Covenant, the federal government provides credit, the state PUC provides an assured revenue stream to protect the federal credit, and the developer provides equity and initiative to build the IGCC project. In return, the federal government stimulates IGCC deployment to support energy, national security, and environmental policy objectives at low federal cost, the state receives competitively priced power, economic development benefits (investment and jobs), and environmental improvement, and the equity investor receives access to nonrecourse, low-cost debt, assured equity returns, and an economic base-load power plant. The roles of each party and their potential motivations for participating in the program are discussed in more detail below.

4.21. Federal Government

Authority for the federal loan guarantee is established through federal legislation authorizing loan guarantees to finance IGCC projects. The guarantee pledges the full faith and credit of the United States Government, thereby receiving a “AAA” credit rating on project debt financing. The legislation establishes a government loan guarantee administrator (presumably DOE) that is responsible for ensuring that construction, operating, and market projections of a proposed IGCC project demonstrate economic feasibility and the ability to meet debt service obligations. The availability of a federal

loan guarantee provides a powerful incentive from the federal government that will encourage state PUC and equity investor participation by lowering financing costs and sharing risks with the federal government.

The administrator also sets the financing terms and conditions of a federal loan guarantee for the debt financing. These terms include allowance of a favorable 80/20 debt to equity structure and performance requirements for qualification. The high debt to equity ratio is critical because it accounts for the majority of the economic savings provided by the program (see Section 5.5 below). It is reasonable for the federal government to guarantee up to 80% of the Total Plant Investment because the federal government is protected from risk of loan default by the state PUC regulatory determinations required by the 3Party Covenant.

The most important condition for qualification for a 3Party Covenant loan guarantee is state PUC certification and approval procedures for the project, which will include issuance of a final order that ensures timely recovery of approved project costs, including cost of capital. These state PUC procedures reduce the risk borne by the federal loan guarantee and include: (1) certification before construction begins that an IGCC project meets federal and state requirements; (2) periodic review and approval of the prudence of each portion of the project as construction proceeds; and (3) cost pass-through providing strong assurance of timely recovery, during construction, of the approved return on capital for each approved portion and, once the plant is completed, for recovery of approved capital investment, return on capital, and operating costs.

In return for establishing the federal loan guarantee program, the federal government receives the energy, national security, economic and environmental policy benefits of IGCC deployment and commercialization at low risk and low budget cost.

4.22. States

The 3Party Covenant is distinguished from other federal financing programs because a principal party is a state PUC or the oversight board of a municipal utility or rural electric cooperative, which effectively controls the revenue stream needed to service the federally guaranteed debt. The state PUC, operating under state enabling law, reviews and approves the IGCC plant proposal upfront, determines the need for power, establishes the mechanism for allocation of project risks and recovery of approved costs, conducts ongoing prudence review during construction and operation, and determines the amount and timing of project revenues.

Unlike the Public Utility Regulatory Policy Act (PURPA), where federal law required utilities to purchase power at avoided cost from qualifying facilities, the 3Party Covenant program is entirely voluntary. The federal government establishes terms and conditions for receiving the federal loan guarantee, but there is no requirement for any company or state to participate in the program.

The 3Party Covenant requires states that choose to participate to establish a state PUC review and approval process that provides for cost recovery and assured revenue to cover debt service and other capital and operating costs (approved by the state PUC) before financial commitments for a federal loan guarantee become effective. Traditionally, state PUC prudence reviews occur after a project is completed, when the opportunity to address problems are limited. The 3Party Covenant requires upfront certification review and ongoing prudence reviews. Once the state PUC assures revenues to service the federally guaranteed loan, the amount of the loan that must be scored as a federal budget expense should be significantly lower, because risk of default is significantly reduced.

The legal authority of state PUCs to participate in a 3Party Covenant is determined by state enabling law. In some states there is adequate authority under current law, and in some states additional legislative authority is required (see detailed discussion of state PUC authority and precedent in Sections 8.0 and 9.0 in Volume II). In some states with more traditional regulation of retail electricity sales, especially in coal producing states, the state PUC already has authority to allow for timely cost recovery (including ongoing recovery of cost of capital for construction work in progress and of all costs after construction ends), and there are legislative policy directives to the state PUC to promote clean coal technology investments or the utilization of coal. Some states with competitive retail electricity sales have the authority to impose non-bypassable wires charges to cover stranded asset recovery, deregulation transition costs, and certain other public benefits programs. In these instances, the non-bypassable charge is typically limited to specific purposes so new legislation or state attorney general approval may be required to include recovery of costs from a new IGCC projects through a non-bypassable wires charge.

The availability of a federal loan guarantee under the 3Party Covenant provides the financial motivation for a state PUC (with support from the governor and legislature) to participate in the 3Party Covenant and approve the assured revenue stream. Specifically, the federal loan guarantee provides available financing on more favorable terms and at much lower costs for an IGCC plant. Lower interest rates and a higher debt-equity ratio reduces the amount of higher cost equity in the capital structure and the associated income taxes. Under the 3Party Covenant financing, the cost of capital can be reduced about 38 percent and the cost of energy reduced about 25 percent. Consequently, a strong motivation for state PUC participation is the opportunity to secure IGCC base-load power at a cost that is lower than PC or NGCC alternatives, enabling savings to be passed on to retail customers. Of course, the state PUC will weigh the potential savings against risks that are also passed along to the ratepayers.

In addition, state PUCs are concerned to maintain quality credit ratings of utilities under their jurisdiction. The availability of nonrecourse federally guaranteed financing reduces the pressure on the utility's capital resources.

Another motivation for state participation is to promote economic development through construction jobs and, in some states, coal mining jobs. IGCC projects produce significant local economic benefits and increase demand for local coal in coal producing

states. Furthermore, in some coal producing states, state PUC participation will be in-line with existing legislative policy directives to promote coal use. The availability of federally guaranteed financing for 80 percent of capital costs assures the availability of favorable financing for a coal-fired plant at a time when few new coal plants have been financed.

Equal to the economic advantages, the state PUC's participation facilitates the deployment of more environmentally attractive technology. IGCC technology can cost effectively achieve much lower air pollutant emissions as compared to traditional coal-fired plants, including very low mercury, SO_2 , NOx, and particulate emissions, and the potential for relatively cost-effective capture and sequestration of CO_2.

4.23. Equity Investor

The equity investor under the 3PartyCovenant is likely to be either an electric utility company (or municipal utility or rural electric cooperative) or an independent power producer with power sales to a utility or other credit worthy purchaser. The equity investor contributes equity for 20 percent of the Total Plant Investment and obtains a performance guarantee wrap from the EPC contractor.

Since few commercial sized IGCC plants have been deployed, there is a perception of significant technology, construction, and operating risks. Few utilities and independent power producers have been willing to construct PC plants even in lower risk regulated environments over the past 10 years. The hypothesis of the 3Party Covenant is that only when some of these risks are borne by the federal loan guarantor (through non-recourse financing) and the ratepayer (through assured cost recovery after upfront certification and prudence determinations) is it likely that IGCC projects will be financed during this decade.

4.3. Ratepayer Benefits and Protection

Under the 3Party Covenant, ratepayers have the opportunity to benefit from lower cost and less polluting power because of access to lower cost financing. In exchange, ratepayers will take on some of the risks of early adopter commercial scale application of an IGCC power plant. However, these risks are mitigated under the 3Party Covenant by EPC contractor construction guarantees (and underlying equipment vendor warranties), the required 10 percent Construction and Operating Reserve Fund, the Line of Credit available for up to 15 percent of Overnight Capital Costs (with a 20 percent equity match), and the state PUC process evaluating the prudence of the IGCC investment decision.[131] As discussed below, it is ultimately up to the state PUC, through a transparent public process, to determine whether the benefits of building a new IGCC

[131] Use of redundant gasifier capacity, which is assumed in the economic assessment in Section 5 below, also provides protection against operational difficulties that might otherwise reduce plant availability.

power plant under the 3Party Covenant outweigh the risks to ratepayers.[132] The decision only will be made where there is a need for new base load power identified and will entail weighing the long-term benefits, risks, and cost of 3Party Covenant IGCC against the long-term benefits, risks, and costs of conventionally financed alternative base load generation or conservation options. [133]

4.31. EPC Contract

A primary risk that must be addressed in building a new power plant is construction risk—the risk that the plant is delivered on schedule, on budget, and initially operating up to the agreed upon thermal and environmental performance specifications. In the electricity sector (not necessarily in the industrial sectors), owners generally hire EPC firms to design and build power plants and look to these firms to provide contractual guarantees (performance wraps) to assure the plant will be built and initially operate as expected.

As part of these guarantees, power plant owners generally seek provisions for liquidated damages if the EPC firm does not deliver on its contractual obligations.[134] Liquidated damages are generally expressed as a percentage of project capital cost and tend to be on the order of 10 to 15 percent for PC and natural gas combined cycle power plants for which costs and risks are relatively well known.

Major EPC firms for the electric power industry have considerable experience designing and building conventional power plant technologies such as natural gas combined cycle and pulverized coal. They currently have limited experience designing and building IGCC facilities. The lack of experience is expected to translate into greater upfront design and engineering costs for the first set of commercial IGCC facilities. It also creates additional uncertainty regarding construction costs and timing to deliver a completed plant that meets performance requirements. For this reason, EPC firms have been

[132] This report has not attempted to quantitatively evaluate the costs or risks that ratepayers are being asked to take on, or to quantify the benefits that they will receive. Instead the paper outlines qualitatively how IGCC and the 3Party Covenant benefit ratepayers and quantifies the direct economic savings associated with 3Party Covenant financing. A comprehensive cost/benefit assessment is beyond the scope of the paper, but may be an appropriate future line of investigation.

[133] The cost risks to the ratepayer of a new IGCC plant would also be significantly diluted by the fact that the plant would make up a small percentage of the total sources of power (generation and purchases) used by a utility. Typical large electric utilities in the U.S. have total sources of power that range between about 50 and 150 million MWh per year. (For example, in 2002 the total sources of power for Cincinnati Gas & Electric were 133 million MWh; Florida Power and Light, 105 million MWh; and PSI Energy, 63 million MWh (see EIA Form 861.) A new 550 MW IGCC facility would generate only about 4 million MWh per year if operating at an 85 percent capacity factor. Therefore, in a worse case scenario, if the cost of energy from an IGCC facility ended up 20 percent more than the cost of energy of an alternative PC plant, it would only represent a 0.5 to 1.6 percent increase in the overall cost of power procurement by the utility, due to the single plant's relatively small share of the total sources of power.

[134] Liquidated damages are used to compensate the owner for economic losses resulting from construction completion problems (delay, underperformance, or failure to complete), such as the cost of replacement power to meet demand that the new plant was intended to serve.

reluctant to provide performance wraps with liquidated damages provisions for IGCC power plants satisfactory to owners and private lenders. Integrating the Construction and Operating Reserve and Line of Credit (explained below) into a structure that includes EPC performance guarantees will be a critical negotiation. However, when serious commercial interest in IGCC power plants emerges, competing EPC firms will have incentive to offer competitive contracts.

Another complicating factor is that the EPC contractors are not the gasification technology licensors. EPC contractors must be satisfied with the warranty/guarantees from the technology licensor (e.g. GE Energy, ConcoPhillips, or Shell), before providing construction and delivery guarantees. Since IGCC technology licensors receive relatively modest licensing fees (+/-$25 million on a $750 million construction contract) that do not justify significant financial risks, it has been difficult for EPC firms to agree with licensors on technology guarantees that enable them to manage their own risk in putting together performance wraps. Several gasification technology licensors are currently working with the EPC contractors in attempt to resolve this issues and enable EPC performance guarantees to be offered.

Participation under the 3Party Covenant requires development of an EPC performance guarantee satisfactory to the owner, lender, federal guarantor, and state PUC. Ultimately, the details of the guarantee will be negotiated by the parties. In the absence of a real commercial market for IGCC power plants, there has been little incentive to work out guarantee details. By providing favorable economics and financing for IGCC, federal implementation of a 3Party Covenant program will create the serious commercial interest needed for firms to aggressively seek to resolve guarantee issues.

4.32. Construction and Operating Reserve Fund

Qualification for a loan guarantee under the 3Party Covenant requires establishment of a Construction and Operating Reserve Fund equivalent to at least 10 percent of the Overnight Capital Cost of the project. For a 550 MW IGCC plant with an Overnight Capital Cost of $1,400/kW, the Construction and Operating Reserve Fund is $70 million.

The Construction and Operating Reserve Fund provides utility rate stabilization because it is available to make up cash flow shortfalls in the initial years of operation due to lower than expected plant availability, construction cost overruns, or other operational problems. The Construction and Operating Reserve Fund is available to cover unexpected costs that are not covered by the EPC wrap and therefore are the responsibility of the owner. Moreover, the fund reduces the likelihood of loan default and prevents the state PUC from having to adjust electricity rates to cover early operational problems. This protection should reduce federal budget scoring requirements and makes it easier for the state PUC to provide assured cash flow. This mechanism is generally present in municipal power financings.[135]

[135] Based on personal communications with JP Morgan Securities.

4.33. Line of Credit

An addition protection to ensure the availability of capital at low cost is a Line of Credit to be drawn to fund the owner's unforeseen construction overruns and operating difficulties. The Line of Credit will be incorporated into the base financing and added to the federally guaranteed debt on the same terms and conditions.[136] It is available for an amount up to 15 percent of Overnight Capital Costs and requires matching equity equal to 20 percent of any draws on the credit line (i.e., the same 80/20 debt to equity ratio as allowed in the base financing). The availability of this Line of Credit provides further protections for ratepayers by ensuring the availability of low-cost capital for the project to overcome unforeseen problems. Without the Line of Credit, if additional capital were needed beyond what was available in the Construction and Operating Reserve Fund, the owner would be forced to contribute more expensive financing (likely 100 percent equity). As discussed in Section 5.5 below, in the Reference case analysis, even if the entire Line of Credit is drawn, the cost of energy from the IGCC project financed under the 3Party Covenant remains 10 percent lower than the cost of energy from the PC financed traditionally. If the Line of Credit is never used, no additional cost accrues to the project.

4.34. State PUC Prudence Review

It is the responsibility of the state PUC, through a highly transparent and public process, to evaluate the prudence of the IGCC investment decision, including the feasibility of technology application, before costs are passed along to ratepayers.

The state PUC first conducts a due-diligence certification process, through which it publicly examines the need for power, reliability of the technology, terms and conditions (including performance guarantees and warranties) of contracts with the general contractor and equipment suppliers, level of redundancy to improve reliability (i.e. proposed redundancy of the gasifier systems), and any other technical or financial issues, including the terms and conditions of the federal debt guarantee. This determination establishes the willingness of the state PUC to participate in the 3Party Covenant.

After commencement of plant construction and thereafter, the state PUC conducts ongoing prudence reviews of construction and operating costs. State PUC certification and prudence reviews protect ratepayers and are the basis for the state PUC determining whether to approve recovery of project costs.

As construction expenditures are determined to be prudent, they are included in rate base and project risks associated with such expenditures are borne by ratepayers. Laws in some states with more traditional regulation of electricity retail sales (e.g., Indiana) allow for this type of ongoing review and assured recovery for "clean coal technology"

[136] For this reason, it should be scored in the federal budget the same as the base loan guarantee.

investments. The 3Party Covenant follows Indiana law in this regard, with the entire IGCC plant treated as a clean coal technology investment.

The federal loan guarantor's risks are minimized by the state PUC's procedures for pass-through of adequate revenue to service the guaranteed debt and cover the other project costs. The utility investor receives, under the pass-through procedures, an assured rate of return on investment unless there is a failure to complete an operable plant. It should be noted that there are similar construction and operation risks associated with modern PC plants as well. These include advanced application of pollution control equipment in untested configurations and the potential for CO_2 limitations that would impose higher costs on PC versus IGCC plants. See Section 9.2 in Volume II (discussing state PUC prudence review in detail and providing model state PUC regulatory mechanism.).

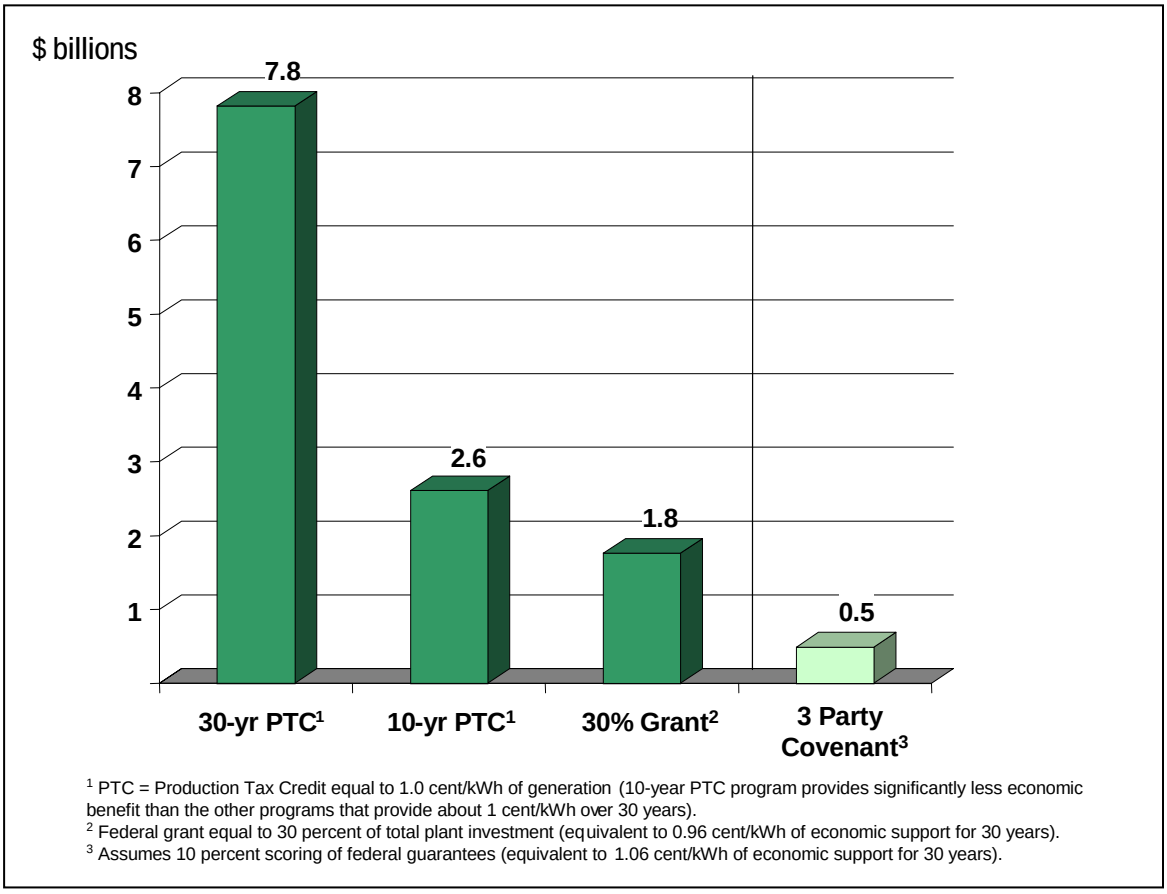
4.4. Federal Budget Scoring

The 3Party Covenant reduces the risk of federal loan guarantees to minimize their budgetary impact and allow a given level of appropriations to support loan guarantees for a larger number of IGCC plants. The budgetary treatment of federal loan guarantee programs is governed by the Federal Credit Reform Act of 1990 (FCRA). FCRA makes commitments of federal loan guarantees contingent upon prior budget appropriations ("scoring") of enough funds to cover the estimated present value cost associated with the guarantees. The present value cost is based on an estimate of the following cash flows at the time the loan guarantee is disbursed:

1. Payments by the Government to cover defaults and delinquencies, interest subsidies, or other payments; and
2. Payments to the Government, including origination and other fees, penalties and recoveries.

State PUC assured utility rate revenues should qualify as a government supported credit. Payments by the Government are estimated based on the dollar amount guaranteed and the risk of loan default. Default risks are typically evaluated by Moody's or Standard & Poors. The risk of default provides for estimation of the expected payment (the risk of default times the amount guaranteed) to make the scoring determination. The Director of the Office of Management and Budget (OMB) is charged with making this determination, but may elect to delegate the OMB's authority to another agency. To the extent the rating agencies view the 3Party Covenant as reducing the risk of default by providing a state PUC approved revenue stream, the federal budget cost (scoring) of the loan guarantees should be reduced. If loan guarantees under the 3Party Covenant were scored at 10 percent of the principal amount guaranteed, then $5 billion of loan guarantees (enough for about 3,500 MW) would cost the federal budget $500 million.

Figure 4-1. Federal Budget Cost of 1 cent/kWh Support for 3,500 MW of IGCC under Different Policy Approaches



[1] PTC = Production Tax Credit equal to 1.0 cent/kWh of generation (10-year PTC program provides significantly less economic benefit than the other programs that provide about 1 cent/kWh over 30 years).
[2] Federal grant equal to 30 percent of total plant investment (equivalent to 0.96 cent/kWh of economic support for 30 years).
[3] Assumes 10 percent scoring of federal guarantees (equivalent to 1.06 cent/kWh of economic support for 30 years).

This budget impact is significantly less than alternative grant or energy production tax credit based incentive programs. As illustrated in Figure 4-1, a one cent/kWh production tax credit provided over a 30 year period (approximately the same economic benefit as provided by the 3Party Covenant) for 3,500 MW of IGCC would cost the federal government $7.8 billion, or sixteen times more than the 3Party Covenant. If provided for only 10 years, the one cent/kWh production tax credit (providing the project significantly less economic benefit than the 3Party Covenant) would still cost $2.6 billion, or more than 5 times more than the 3Party Covenant. Similarly, if a 30 percent federal grant were offered to offset IGCC capital costs, the federal budget cost would be more than 3.5 times more than the budget cost of the 3Party Covenant. The 3Party Covenant loan guarantee approach is significantly less costly to the federal government than these alternative incentive approaches and has the advantage of addressing the major financial obstacles to deployment (e.g., capital availability) that would not be addressed by a production tax credit or grant program. [137]

[137] This is not to suggest that budget cost and capital availability are the only attributes that policy makers should consider. There may be other tradeoffs between a PTC and loan guarantee approach that policy

Under the 3Party Covenant, the primary risk to the federal loan guarantee is a regulatory risk that state PUC determinations regarding cost recovery are modified or overturned at a future date. This regulatory risk, which could be reduced or removed through state legislation, should be viewed by rating agencies as considerably lower than the technology and operating risk associated with development of new IGCC power plant. As a result, the federal budget scoring of a 3Party Covenant loan guarantee program to finance IGCC power plants should be substantially lower than if a federal loan guarantee program were established without clear creditworthiness requirements. Alternative credit enhancement, such as a power purchase agreement with a creditworthy industrial user or utility (investor owned, municipal, or cooperative), through investment grade corporate credit guarantees, or through insurance or some other instrument that substitutes for the state PUC regulatory determinations would be acceptable so long as the risk to the federal loan guarantee is viewed as similar to that associated with regulatory determinations. The key for favorable budget scoring is that the federal guarantee be insulated from the risks of the project to avoid having these risks determinative in the budget scoring calculus. It is recommended that to qualify for 3Party Covenant financing an IGCC project's budget scoring should not exceed 10 percent of loan principal (see Appendix A).

The credit protections of the 3Party Covenant also provide the basis for federal guarantees of 80 percent of the Total Plant Investment. The 80 percent guarantee is similar to the levels in housing, shipbuilding, foreign trade and other federal guarantee programs.[138] Without regulatory determinations or other credit enhancement as protection, it might be more appropriate to cover a smaller percentage of project costs (say 50%) with the loan guarantee. However, by reducing the level of the guarantee, the economic benefits of the loan guarantee program are substantially reduced.[139] The economic benefits are critical for making IGCC cost competitive with PC and providing a basis for state PUCs to make the regulatory determinations required for participation.

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makers may want to weigh, such as the requirements for administering the program and the risks associated with different approaches.

[138] For example, the Federal Ship Financing Program provides up to 87.5 percent loan guarantees for construction, reconstruction, and reconditioning of commercial ships in U.S. shipyards (See, U.S. Department of Transportation, Maritime Administration, *Federal Ship Financing Progra*m, available at: http://www.marad.dot.gov/publications/shipbuild.htm). Similarly, federal housing loan guarantees are available for 100% of low income home loan (See, Section 502 Guaranteed Rural Housing Loan Program, 7 CFR Part 1980). The Export-Import Bank provides loan guarantees for 85-100 percent of the value of U.S. export goods purchased by foreign buyers (See, Export Import Bank of the United States at: http://www.exim.gov/products/loan_guar.html).

[139] As demonstrated in Section 5.5 below, the economic benefits of the 3Party Covenant loan guarantee program result primarily from allowing a greater percentage of low cost debt than would be possible under conventional financing (80% versus 55%). There is some economic benefit from the lower cost of federally guaranteed debt (which costs about 1% less than typical utility debt), but this benefit is dwarfed by the benefit from shifting to a greater percentage of debt under the 3Party Covenant.

4.5. State Adoption and State PUC Participation

In states with more traditional retail electricity sales regulation, state PUCs protect retail customers of a utility by assuring that reliable service is available at reasonable rates. In balancing ratepayer and investor interests, state PUCs employ a variety of review procedures and cost recovery mechanisms, including, in some states, review and recovery of costs during construction and cost recovery through adjustment clauses. In such a state, IGCC project cost recovery under the 3Party Covenant is through adjustment clauses in the rates paid by all retail customers of the regulated utility. Indiana, for example, already has adopted procedures with many of these features for pollution control and clean coal technology investments.[140]

In states with competitive retail electricity sales, state PUCs are implementing competition, although often a variety of cost recovery mechanisms (e.g., for transition costs, stranded asset costs, and public benefit programs) remain in place. In such a state, IGCC plant cost recovery under the 3Party Covenant is through an adjustment clause in a non-bypassable wires charge paid by all retail electric customers, e.g., in the service area of the distribution utility selling the IGCC power. Ohio already provides for non-bypassable wires charges for transition costs and certain public benefit costs.[141]

Within these constructs, the specific procedures that must be established by the state PUC for participation need to include the following elements (see Section 9.0 in Volume II for a detailed discussion of these requirements and how they relate to existing state laws):

1. Before any construction begins, the state PUC reviews the equity investor's detailed plans for the IGCC plant in order to determine whether the plant is in the public convenience and necessity. Determination of the public convenience and necessity includes consideration of several factors concerning the likely benefits and costs of the proposed IGCC plant and the need for base load power. As part of this consideration, the state PUC reviews the terms and conditions of the federal loan guarantee and the impact of the 3Party Covenant on the cost of financing the IGCC plant and the cost of electricity to ratepayers for alternative projects. Based on a satisfactory balancing of these factors, the state PUC issues a certificate of public convenience and necessity for the new plant. In the certificate, the state PUC establishes a fixed return on equity for the project and approves the use of an adjustment clause for future recovery of incurred costs (including recovery during construction of return on capital on construction work in progress (CWIP)).

[140] See, e.g., IC 8-1-6.8 (cost recovery during construction), 8-1-8.7-3 (certification of clean coal technology), 8-1-8.7-7 (ongoing review), 8-1-8.7-8 (assurance of recovery of approved costs), and 8-1-8.8-11 and 8-1-8,8-12 (financial incentives for clean coal technology and new energy generating facilities).)

[141] See, e.g., ORC 4928.37(A)(1)(b), 4928.61, and 4933.83.

2. After issuance of a certificate and as construction progresses, the state PUC periodically conducts a prudence review on an expedited basis and approves the portion of the IGCC plant constructed during the preceding period. As each portion of construction expenditures (CWIP) is approved in the ongoing review, the return on capital for the approved expenditures becomes recoverable on an ongoing basis through, and is reflected in, the approved adjustment clause.

   If the duration of each periodic (e.g., six-month) review proceeding is limited (e.g., to three months), return on capital during construction is recovered within a relatively short period (e.g., three to nine months) after incurrence of the associated capital expenditures. Since most of the cost of capital is recovered on an ongoing basis during construction, a much smaller amount is accrued, added to the capital investment in the plant, and ultimately recovered through amortization.

   As each portion of the construction expenditures is reviewed and approved, future recovery of these costs (including the related return on capital) cannot thereafter be challenged, except in limited circumstances. For example, issues concerning excessive cost, inadequate quality control, or inability of the plant to continue to operate properly cannot be raised after the costs are approved. In this way, the state PUC's review and protective approval is updated during and after plant construction. In the event of failure to complete an operable plant, the debt-funded portion of the approved pre-construction and construction expenditures will be fully recoverable, but the equity-funded portion will be only 50 percent recoverable.

   Disbursement of the federally guaranteed loan is coordinated with the ongoing review process. As each portion of construction expenditures is reviewed and approved for recovery through the adjustment clause, the federally guaranteed loan is disbursed for the debt-funded share of that portion of the expenditures.

3. After completion and commencement of operation of the new IGCC plant, the state PUC periodically conducts, on an expedited basis, a prudence review of the plant's operating costs during the preceding period. As the operating costs are approved in the ongoing review, the approved operating costs become recoverable on an ongoing basis through, and are reflected in, the approved adjustment clause. Coordinated with the approval and pass-through of operating costs, the depreciation and amortization of the previously approved construction expenditures and associated return on capital also become recoverable through, and reflected in, an approved adjustment clause. The state PUC requires the IGCC plant owner to segregate the entire revenue stream from the approved adjustment clause and place the revenues in a separate account that can only be used to pay project costs, including return on capital.

Under these procedures, state PUC certification and approval creates an assured, dedicated revenue stream to cover the risks of the IGCC plant (see detailed discussion in

Volume II, Section 9). From the standpoint of the federal government, this assurance provides enhanced credit worthiness and strong protection against loan default. From the standpoint of the equity investor, this assurance enables underwriting of the federally guaranteed, non-recourse loan in the context of a higher debt-equity ratio (80/20) than available under traditional utility financing of (55/45). From the standpoint of purchaser of the long-term debt, the federal guarantee provides a “AAA” credit rating.