



A triple 'S' for sustainability: Credit ratings agencies and their influence on the ecological modernization of an electricity utility



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ABSTRACT

A new biomass fueled electricity generation plant is now under construction in Gainesville, Florida and serves as an excellent subject as it demonstrates the surprising ways the credit ratings agencies influence ecological modernization. Through content analysis, participant observation, and document analysis I will illustrate how credit ratings agencies have influenced the ecological modernization of one of the United States' approximately 2000 municipal electricity utilities.

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1. Introduction

Environmental regulation usually comes from the government at the local, state, and federal levels. Environmental regulation can also come from civil society through transnational advocacy networks (Keck and Sikkink, 1998) and democratic pragmatism (Dryzek, 2005). Many industries have also developed their own set of environmental and sustainability initiatives such as the Sustainable Forestry Initiative of the timber and paper industries and the Sustainable Retailing Consortium of the National Retail Federation. But credit ratings agencies do not fit into any of these categories. Based on a combination of qualitative research methods used to investigate the development of a 100 MW, biomass burning plant this article argues that credit ratings agencies are also involved in the ecological modernization and environmental regulation of utilities.

Eco mod is both a social and sociological theory, which argues that traditional economic rationalism and the idea that all growth is good is found wanting if growth results in negative environmental externalities that threaten the environment and society that depend upon the environment for survival. Eco mod further argues that economic growth and environmental stewardship can go hand in hand through the implementation of environmental regulation, clean technologies, sustainable supply chain management, production efficiencies, and ecologically minded waste management

(Mol and Spaargaren, 1998). Eco mod will be discussed further in Section 1.2.

Credit rating agencies, while extremely important to our nation's financial regulation with explicit roles for credit rating agencies within that regulation, are not governmental actors. Credit rating agencies also have nationwide and international footprints but civil society has no say in their behavior. Credit rating agencies are private companies that answer to private investors, making them a unique form of regulator. Credit ratings agencies may influence the ecological decision making of utilities while pursuing credit ratings agencies' more traditional role of utility bond rating. Credit rating agencies will be discussed further in Section 1.3.

Eco mod promotes alternative energy projects as opportunities to provide economic development, to develop cleaner, greener technologies, and to reduce ontological insecurities arising from unfamiliar, unclean, and potentially noxious industrial activity (Mol and Spaargaren, 1998). While Gainesville is not even the biggest city in Florida, the way the biomass plant was financed has local, national and international ramifications because of how the equity and debt financing was raised and because of the institutions that affected GRU decision making. The credit ratings agencies are examples of these institutions.

1.1. Gainesville Regional Utilities

As part of its efforts to reduce its carbon footprint, Gainesville Regional Utilities' (GRU) has decided to purchase the energy from a \$500 million, 100 MW producing, wood waste burning, biomass

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electricity generation plant. GRU is also pursuing this initiative as a way to diversify away from the potentially high, future regulatory costs and price volatility of coal. GRU desires to sell 25–50 MW of power from the biomass plant beyond its existing service area (Field Notes October 10, 2011).

GRU's decision to purchase electricity from the Gainesville Renewable Energy Company (GREC) is a great example of how unexpected institutions like the credit ratings agencies are used to legitimize and even shape alternative energy initiatives. The biomass plant developer American Renewables created GREC as a bankruptcy remote entity to serve as the eventual owner of the biomass plant. Bankruptcy remote entities are a common feature of infrastructure project finance (Finnerty, 2013) as they hold benefits for both project sponsor/developers and project investors in the event of financial duress. Bankruptcy remote entities are limited purpose finance subsidiaries that facilitate raising capital, garnering a higher project credit rating, and earning a lower interest rate on borrowing (Sargent, 1989). If GREC begins to show signs of failure or fails, assets belonging to American Renewables outside of GREC are safe from investors in GREC. If other American Renewable projects with outside investors begin to experience duress or failure, the investors in GREC and their equity are safe from claims from investors in other American Renewables projects. This entity will provide GRU with renewable energy but GRU will not have to take on any debt of its own to develop this energy source. Debt avoidance is important to credit ratings agencies since it is one way to assure them the ratings client will more than likely be able to meet existing debt and interest payment obligations (outstanding bonds) in the future.

The city of Gainesville and its population of approximately 126,000 (quickfacts.census.gov) owns GRU, a multi-service utility. GRU is the 5th largest municipal electric utility in Florida. Of the approximately 3300 electric power providers in the United States, GRU is one of 2008 public power providers that provide power to 15% of electricity to American commercial and residential consumers (American Public Power Association). GRU serves approximately 90,000 retail and wholesale customers in Gainesville and surrounding areas and offers electric, natural gas, water, wastewater, and telecommunications services (www.gru.com/AboutGRU/default.jsp, Retrieved November 1, 2011).

Gainesville is also home to the University of Florida (UF), which has 49,785 students (University of Florida Admissions). But UF buys most of its power from Progress Energy, which operates a 50 MW cogeneration plant on the UF campus. UF is one of Progress Energy's 20 largest customers and Progress (and its predecessor Florida Power) has been providing electricity to UF for 60 years. UF had 75 MW peak electrical demand in 2010. The current agreement between UF and Progress Energy ends in December 2014. GRU does provide electrical power to UF affiliates such as the UF Shands healthcare complex and will respond to any requests for proposals in the event UF wishes to seek alternatives to its current relationship with Progress Energy (Crabbe, 2012).

The Regional Utilities Committee (RUC), which oversees GRU, has three members: the mayor of Gainesville and two members of the Gainesville city commission. Gainesville started its own municipal utility in 1912 (www.gru.com/AboutGRU/ourhistory.jsp, Retrieved November 1, 2011). This ownership structure differs from nonprofit, member-owned, electricity cooperatives (like Clay Electric Cooperative that serves some areas right outside of Gainesville), from investor owned, regulated utilities whose stock trades on public stock exchanges (like Progress Energy, whose stock trades on the NYSE - symbol PGN - and also operates in the Gainesville area and provides the University of Florida with most of its electrical power), and from publicly traded wholesale power generation companies like NRG Energy, Inc. - NYSE symbol NRG. While

GRU is municipally owned and therefore does not have publicly traded equity or stock, GRU does have publicly traded debt or bonds and the credit ratings agencies rate these bonds.

1.2. GRU's earlier sustainable energy initiatives

In addition to GRU's biomass initiative, GRU had also undertaken the retrofitting of its Deerhaven 2 coal firing electricity generation unit so that it exceeds existing emissions regulations for greenhouse gases and particulate matter. While Deerhaven 2 provides 60% of GRU's power, Deerhaven 2 is twenty years old and GRU management does not think it makes economic sense to continue to put money into a facility that old and that may be too costly to operate in the future. Current regulations preclude the construction of new coal fired plants and many Gainesville citizens do not want a new coal firing plant (Field Notes October 10, 2011).

Gainesville also has programs to incentivize the development and utilization of solar energy technology. Homeowners can receive rebates on utility bills for utilizing solar powered water heaters and for selling unused electricity to GRU. GRU also sponsors a solar feed-in tariff program (solar FIT) that pays businesses who invest in their own solar technology a fixed, above market rate for electricity for twenty years. GRU may only purchase up to 4 MW per year through solar FIT, less than 1% of the approximately 450 MW of electricity GRU provides to its customers on an average annual basis. GRU's total solar capacity is approximately 15 MW per year (GRU, 2012). Gainesville residents have pressed GRU to expand solar FIT but there has been controversy as well since GRU pays a premium over electricity market rates (www.gru.com/TabID/3824/Default.aspx). GRU management has also decided solar is an unsuitable base load power replacement for Deerhaven 2 with current energy storage technology (Field Notes October 10, 2011).

1.3. Ecological modernization (*eco mod*)

Eco mod is used in roughly four ways. The first is one of the versions of environmental sociology with Arthur Mol and Gert Spaargaren being considered the creators of eco mod's core literature (Mol and Spaargaren, 1998). A second way eco mod is used is in eco mod literature that investigates actual socio-political mechanisms that lead to or inhibit positive environmental outcomes (Fisher and Freudenburg, 2001, p. 702). Follow on literature has been comparative in nature while looking at neoliberalism and globalization and how they catalyze or impede eco mod in the global south. A third way eco mod has been used is more constructionist in nature. Eco mod can be thought of as a way to categorize discourse. (Hajer, 1997). This can be viewed positively as it has become more acceptable for people to discuss the environmental outcomes of more and more human activities in *salonfähig*, or polite society. It can also be viewed negatively as this discourse of positive change may divert attention away from the very real and material issues of the extent to which current economic activity is difficult for states to regulate and ensure a healthy environment for its own sake and for people. Many eco mod scholars argue that this is in opposition to the pro-capitalism eco mod literature and is perhaps not really a part of the eco mod perspective (Buttel, 2000, p. 59).

A fourth way of viewing eco mod is when it is used as a synonym for eco-restructuring (and economic development that results from restructuring activity) with an emphasis on private sector improvements to production processes that result in more positive environmental outcomes than past production processes. Increases in efficiency and the minimization of waste and pollution are outcomes that are often highlighted in eco mod literature (Jänicke, 2003). GRU and the credit ratings agencies recognize that society in general is expecting utilities to be more environmentally

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